DOCUMENT RESUME

ED 267 188 CE 043 703

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TITLE Quality Circle Training for Community College Educators and Students and the Businesses They Serve. Final Report.
INSTITUTION Central Piedmont Community Coll., Charlotte, N.C.
SPONS AGENCY North Carolina State Dept. of Community Colleges, Raleigh.
PUB DATE Aug 84
NOTE 113p.
PUB TYPE Reports - Descriptive (141)

EDRS PRICE MF01/PC05 Plus Postage.
DESCRIPTORS *Community Colleges; Employee Attitudes; *Employer Employee Relationship; Participation; *Participative Decision Making; *Quality Circles; Seminars; *Teacher Administrator Relationship; Training; Two Year Colleges; Vocational Education; Workshops

ABSTRACT

A project sought to extend Central Piedmont Community College's (CPCC) expertise in quality circles. Objectives were to provide low-cost quality circle training for personnel in community colleges and business and industry and to provide instruction in quality circles for college students. Three hundred educators and business people attended one-half-day seminars in initiating quality circles. Later, approximately 70 people attended five 3-day quality circle facilitator training workshops. Through seminars and management courses in different curricula, approximately 140 CPCC students were exposed to the quality circle philosophy and process. Conclusions were that educators do not appear to be ready to embrace the concept of quality circles; that industry is becoming more and more interested in employee involvement programs, especially quality circles; and that a continuing need exists for community colleges to disseminate quality circle information. Appendixes, amounting to over one-half of the report, include an overview of quality circles; a seminar announcement, a quality circles in industry brochure, handout materials and evaluation forms for seminars; instructions for facilitator training groups to teach steps in the problem solving process; and an evaluation form for educator's facilitator training. (YLB)

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QUALITY CIRCLE TRAINING FOR COMMUNITY COLLEGE EDUCATORS AND STUDENTS AND THE BUSINESSES THEY SERVE

FINAL REPORT

Doris W. McIlwain
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Charlotte, North Carolina

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August, 1984

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NORTH CAROLINA DEPARTMENT OF COMMUNITY COLLEGES
DIVISION OF PLANNING SERVICES
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RALEIGH, NORTH CAROLINA 27611

RESEARCH PRIORITY AREA: Institutional Educational Program Improvement

PROJECT TITLE: Quality Circle Training for Community College Educators and Students and the Businesses They Serve

PURPOSE: To Provide low cost instruction in quality circle philosophy and techniques for North Carolina community college instructors, CPCC students, and local businesses.

PROJECT DATES: Beginning: 9/1/83 Ending: 8/31/84
Duration: 12 Months

BUDGET: $30,350

AGENCY: Central Piedmont Community College
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ABSTRACT

QUALITY CIRCLE TRAINING FOR COMMUNITY COLLEGE EDUCATORS AND STUDENTS AND THE BUSINESSES THEY SERVE

In January 1981 Central Piedmont Community College (CPCC) began the first quality circle in an educational institution. A grant based on the potential demonstrated by that circle allowed CPCC to expand the circle program on campus. As a result of the first grant, a new one was sought to extend the expertise gained at CPCC to other community colleges and to local business and industry personnel. Believing that other colleges would be able to train business and industry personnel in their respective areas, CPCC provided them with instruction in the quality circle philosophy and process. After building their own quality circle programs, the other colleges would, like CPCC, be able to reach out to local industries with low cost training.

The main objectives of the project were:

1. to provide low-cost quality circle training for personnel in community colleges and business and industry.
2. to provide instruction in quality circles for college students.

The major conclusions and recommendations resulting from this project were:

RESULTS

1. A total of 300 educators and business people attended one-half day seminars in initiating quality circles.
2. Later, approximately 70 people attended five, three-day

quality circle facilitator training workshops.

3. Through seminar and management courses in different curricula, approximately 140 CPCC students were exposed to the quality circle philsophy and process.

CONCLUSIONS

1. Some North Carolina community college personnel are interested in the quality circle philosophy and process, but on the whole, educators do not appear to be ready to embrace the concept.
2. Business and industry leaders have become more and more interested in employee involvement programs, especially quality circles.
3. There is a continuing need for community colleges to disseminate quality circle information.
4. Community college business management and human relations instructors want to expose their students to the quality circle process in order to broaden their students' knowledge of employee involvement programs.

Acknowledgements

A special thanks is extended to the people who helped make this project successful:

For being a partner in developing and conducting this project and for being a trainer and a friend of the highest calibre, Mr. Don Shepherd;

For service on the Advisory Committee: Dr. Dan Chartier, Dr. Lois Dixon, Dr. Tom Griffin, Rocky Lane, Carol Lincoln, Linda Lindsey, Dr. Lynn Moretz, Kathy Munday, Nancy Todd;

For spreading our message to the public, Carol Lincoln, Mike Myers, and Laura Tolar of the Public Information Office at CPCC;

For support and encouragement, Dr. William A. McIntosh and Dr. Marion Baker;

For "keeping the wheels greased" and secretarial help, Sandi Sides.

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I. INTRODUCTION

Quality Circles at Central Piedmont Community College

Increasingly, educational institutions and private businesses are forced to cope with severe budget constraints. Slashed budgets and frozen salaries lead to apathy and low productivity. Administrators and managers face major questions: How can we maintain and improve morale? How can employees be enlisted enthusiastically to improve quality and productivity?

Early in 1980, a study of the quality circle process was begun at Central Piedmont Community College (CPCC), Charlotte, North Carolina. By December, the support of the college's administration had been obtained and a pilot circle planned in the Media Production department. This circle, the first in an American educational institution, began meeting in January, 1981. A $22,000 grant (from Occupational Education Research Services) in July, 1981, enabled CPCC to train facilitators and leaders and implement 19 circles (200 people out of 560 full time employees) by December, 1982.

Some of the major conclusions and recommendations resulting from this project, Quality Circles in Education, were:

1. Community Colleges can implement quality circles effectively with instructional and other professional personnel as well as in "blue collar" operational areas. They should be encouraged to do so after study, planning and training.
2. Quality circle facilitator training should be provided for North Carolina Community College System personnel

in the Western, Piedmont and Eastern sections of the State.

3. Community Colleges should develop training programs for industry in quality enhancement through employee involvement. These offerings should draw on the colleges' own experience with quality circles for credibility and relevance.

4. Community college students, especially those in occupational curricula, should be taught the concepts, philosophy and techniques of team problem solving through the quality circles process. This instruction should include internships in businesses with circle programs whenever possible.

5. Community colleges should take a leading role in encouraging participative management strategies that involve employees at all levels and recognize fairly their contributions. With proper preparation, based on their own experience, community colleges could make contributions in human motivation, quality of work life and product quality that would rival hoped-for advances in high technology training. The fundamental value of human creativity and motivation to cooperate must not be overlooked in the rush to high technology. Advances in both areas are required if American industry is to compete in world markets and regain those lost at home.

CPCC's experience demonstrates that quality circles can

generate improvements in learning conditions as well as staff morale and productivity. The process is not a "quick-fix" however; training resources, management support, time and patience are required. Recognition of the necessity to improve educational management anad focus on quality is growing. More than 120 colleges and school systems have sought information from CPCC regarding quality circles in education. More than a dozen national, regional or state professional education groups have requested presentations for members.

Quality Circles in Industry

Quality circles are used by a growing number of companies throughout North Carolina. But many companies, because of various budgetary reasons, cannot afford expensive consulting groups to come in and train quality circle facilitators. Since both industry and education face similar problems, quality circles form a common bond between the two. Here is an area in which CPCC can plan and effect improved responsiveness to the needs of local industry.

All community colleges can provide valuable training services for business and industry in quality circle processes. Employing the process in house will enhance the quality and credibility of this outreach. In addition, community colleges can improve the employability and effectiveness of their students by including instruction in quality circle processes in occupational curricula.

New Needs to Be Met

This project responded to the need for:

1. An experienced credible source of low cost training in quality circle processes for the Community College System institutions. Quality circle facilitator training is now available only from consultants to industry. It costs from $700 to $1200 per person, not including travel. Furthermore, these consultants have no experience in education. Many educators think quality circles apply only to factories. CPCC's experience provides credibility and a direct example for other educators.

2. An experienced credible source of low cost training in quality circle processes for local business and industry. CPCC has two facilitators who are certified quality circle facilitators and have led circles and conducted quality circle workshops over the last two years. They are also deeply involved with Charlotte's local chapter of the International Association of Quality Circles, a chapter whose membership is predominantly made up of quality circle facilitators in business and industry.

3. Continued experimentation with quality circle processes in education. Much is yet to be learned about how best to implement programs in education so that systematic quality improvement becomes accepted as part of everyone's job.

4. Students practiced in quality circle processes, which can increase their employability. Students are increasingly likely to be employed in jobs that involve

quality circle participation or management. Knowledge of quality circle processes will increase student opportunities as more businesses develop circle programs.

II. ORGANIZATION

The basic project organization consisted of the project director, Doris McIlwain, and a one-half time facilitator, Dr. Don Shepherd. Both had been involved in CPCC's quality circle program for two years and had helped inform and train the people involved in our present program. Both, had also, attended facilitator training led by Productivity Development Systems of Clearwater, Florida. The one-half time facilitator, Dr. Don Shepherd, has also been a trainer for many years in group process and dynamics and organizational development before working with quality circles.

III. OBJECTIVES

The specific objectives aimed at addressing the needs of the project were:

1. To provide quality circle training for personnel in Community College System institutions. The principal training needed was twofold:
   a. Orientation to the quality circle process for top administrators and other interested personnel.
   b. Facilitator training.
2. To provide quality circle training for business and industry personnel. The principal training needed was twofold:

a. Management orientation to the quality circle process.

b. Facilitator training.

3. To provide instruction for students in quality circle concepts and techniques.

IV. PROCEDURES

Quality Circles in Education Seminars

Although the project was located at CPCC, it was felt that the training should be made convenient to the other 57 community college institutions. Working through the Professional Development Institute (PDI) at the North Carolina Department of Community Colleges, the orientation seminars were offered in five areas of the state. (PDI already had the state divided into five regions with contact people already designated for each region and a PDI council member appointed at each institution to publicize their staff development events.) PDI newsletters were sent out to each institution describing the seminar. (Appendix C) The regions were small enough so that the participants could drive in for the one-half day seminars.

During the seminars a basic overview of the quality circle process was given. The following agenda provides the basic topics that were covered.

Education Seminar

1:30-1:45 Introduction and announcements

1:45-2:00 Slide/tape "Teampower and Brainwork"

2:00-2:15	Road Map to Problem Solving (slide/tape)
2:15-2:25	How QC's Operate
2:25-2:45	Cause & Effect Diagram
2:45-3:00	Break
3:00-3:10	Process Cause & Effect Chart
3:10-3:30	Motivation and Management Theory
3:30-3:45	Elements of a Successful Program
	Potential Problems
	Implementation Problems in Education
3:45-4:00	Steps to Implementation
4:00-4:30	Questions & Answers

After the one-half day seminars were conducted, PDI newsletters were again sent out to all institutions to announce a three day Quality Circle Facilitator Training Workshop. The proposal called for a workshop to be offered in the Eastern, Central and Western part of the State so that individuals who attended could return to their institutions and implement local quality circle programs. A maximum of 21 people could attend each workshop.

Quality Circles in Industry Seminars

Three one-half day seminars were advertised to offer a management orientation to the quality circle process for business and industry in the Charlotte-Mecklenburg area. Brochures (Appendix D) were sent to businesses in the immediate area and to a few businesses outside of Mecklenburg County: even outside of North Carolina. In addition to circulating brochures, the Charlotte Chamber of Commerce included an announcement in its

newsletter, CPCC included an announcement in its fall quarter class schedule, and local radio and newspapers carried public service announcements about the seminars.

During the seminars a basic overview of the quality circle process was given. Stressed throughout the afternoon was the importance of having upper level management support for Quality Circles in order for them to be successful.

In addition to Doris McIlwain and Dr. Don Shepherd conducting the seminars, a Quality Circle Facilitator from industry made a short presentation and answered questions. The following agenda provides the basic topics that were covered.

QCs IN INDUSTRY

1:00-1:10	Introduction
1:10-1:25	Road Map to Problem Sovling and the Ingenious Blender (slide/tapes)
1:25-1:45	Overview of the QC Process
1:45-2:05	A Management Presentation at Barclays/American Corporation (videotape)
2:05-2:30	Cause and Effect Chart
2:30-2:45	Break
2:45-3:00	Group Process on Cause and Effect Chart
3:00-3:15	Motivation and Management Theory
3:15-3:45	Management's Role in QCs (videotape)
3:45-4:00	Steps to Implementation--Facilitator Training in Spring
4:00-4:05	Break
4:05-4:45	Industry QC Facilitator's Presentation

4:45-5:00 Questions and Answers

After the seminars, invitations were extended to all those who attended to receive further training through a three day Quality Circle Facilitator Training Workshop. A maximum of 21 people could attend. These workshops were held on the CPCC campus and like all of the activities conducted under the grant were free.

Quality Circles Instruction for CPCC Students

As a final part of the project, an invitation was made to all instructors on CPCC's campus (day and evening) to provide a unit of instruction for their students in the quality circle process. The continuing growth of quality circle programs in America suggest that students will be more employable if they understand quality circle processes.

Each unit of instruction was similar but tailored to the particular needs of the course. An example of a typical agenda used follows:

1:00-1:40	Norfolk Naval Shipyard (videotape)
1:40-2:00	Overview of QC Process
2:00-2:50	Motivation and Management Theory
3:00-3:15	Brainstorming
3:15-3:30	Cause and Effect Analysis
3:30-3:45	Data Collection
3:45-4:00	Management Presentation

V. RESULTS

Survey

At the very beginning of the project, a survey was sent out

to over 1300 companies in the area. Only 47 responded. The results are in Appendix E. No real determination could be made from the answers from such a small group.

Training--Overview Seminars

As stated earlier the one-half day seminars for educators and business personnel gave a basic overview of the quality circle process, stressing the importance of having upper level management support to insure success. Appendix F is the materials circulated during the seminars. The materials had a few differences to accommodate the particular audience. An evaluation sheet was filled out at the end of each seminar and the succeeding seminar was modified according to the feedback. (Appendix G)

The seminars were offered in the five PDI regions. The seminar in the Western Region was canceled due to lack of interest. Only three people signed up to attend (there had been a short session on quality circles in that area the year before).

The following table summarizes the participation by region:

Date of Seminar	Schools Represented by Region	No. of People in Attendance	No. of Institutions Represented out of Total in Region
11/1/83	Mid-Western Region Catawba Valley TC Cleveland TC Mitchell CC Surry CC	11	4/12
11/3/83	Southeastern Region Bladen TC Brunswick TC Robeson TC Sampson TC Southeastern CC	20	5/12

11/15/83	Western Region (canceled)		0/7
1/11/84	Piedmont Region Central Carolina TC Davidson County CC Guilford Technical CC Randolph TC Rockingham CC Sandhills CC	34	6/13
1/25/84	Northeastern Region Coastal Carolina CC Edgecombe TC Halifax CC Nash TC Wilson County TI	30	5/15

The 95 people in attendance represented deans, assistant deans, directors, department heads, instructors, non-teaching staff and secretaries.

Out of the 95, 34 expressed an interest in attending facilitator training in the spring.

At the last seminar at Edgecombe Technical College, a number of people attended who were not part of the community college system. They came from Beverly Health Care, Edgecombe General Hospital, TiCaro, Inc. and Tom Togs, Inc.

Participant evaluations were very good, averaging between 3.5 to 4.0 out of a possible 5.0 scale. In the beginning the main criticism was that there was no time for participants to actually experience some of the techniques such as brainstorming and cause and effect analysis. The seminars were revised to include a cause and effect analysis. Just about all participants expressed a desire for more time. Some of the positive comments were that it was well organized and presented and included a lot of information in a short period of time.

Three seminars were orginally offered to people in business and industry, but due to the demand a fourth was conducted so that all of the people interested could attend. All totaled, 300 people pre-registered for the four seminars, although only 200 actually attended. Eighty-four expressed an interest in attending further training through our QC Facilitator Training workshop. Approximately 65 different organizations were represented with the following breakdown:

6 Presidents
3 Vice Presidents
2 Plant Managers
1 Assistant Plant Manager
3 District Managers
7 Store Managers

Other types of positions represented:

Supervisors
Personnel Officers
Directors of Human Resources
Quality Assurance/Quality Control Directors
Engineers
Trainers
Salespersons
Nurses
Department Managers
Quality Circle Facilitators

Some companies represented:

NCR Corporation
Eastern Airlines
Reichhold Chemicals
Whirlpool Corporation
Springs Industries (South Carolina)
Ivey's Department Store
Duke Power Company
General Tire and Rubber Company
Burroughs Corporation
A & P Food Stores
Mercy Hospital
BASF Wyandotte
Weisz Graphics
Screencraft
Craftsman Graphics

Finance/America
Kemper Insurance
Barclays American Corporation
First Union National Bank
Jefferson Pilot Broadcasting

Government agencies represented:

U. S. Navy
U. S. Postal Service
Charlotte Police Department
Mecklenburg County Health Department
Charlotte/Mecklenburg Building Standards
City of Rock Hill (South Carolina)

Some companies sent several people to learn more about the quality circle concept. General Tire and Rubber Company sent 20 people as part of a study team even though they were in the middle of a union strike. A local volunteer group, Womanreach, sent 15 people. A & P Food Stores sent about 15 district and store managers as part of a study team.

An evaluation sheet was filled out at the end of each seminar and the succeeding seminar was modified according to the feedback. The results were very good averaging between 3.4 to 4.4 out of a possible 5.0 scale. On the whole most participants gave the industry QC facilitators a 5.0 rating for their presentation. This presentation gave the audience a chance to ask questions that the main presenters couldn't answer due to their limited experience with industry.

The main criticism was that there was no time for participants to actually experience some of the techniques such as brainstorming and a cause and effect analysis. The large size of the groups prevented much experiential learning but a cause and effect analysis was tried in subsequent seminars with some

success.

Another criticism was that we presented too much information in too short a time. We realized that we would have this problem but felt we would lose attendance since it is difficult for people to be away from the office all day. We sacrificed discussion time for a chance to reach as many people as possible with our message. We always made it known we would be available for further talks on an individual basis.

Training - QC Facilitator

The people who attended the seminars were later invited to attend a three day facilitator workshop. Information was also sent out to other interested people.

Training was basically the same for educators and business people. The examples used were either industry oriented or education oriented depending on the group. The following is the three day agenda.

QC Facilitator Training
Agenda

Day 1		
	8:30-9:00	Getting Started
	9:00-9:30	Review of Basics
	9:30-10:30	Role of Team Leader/Facilitator
	10:00-10:15	Break
	10:15-11:15	Communications and Listening
	11:15-12:15	Group Process
	12:15-1:15	Lunch
	1:15-1:45	Handling Conflict
	1:45-2:15	Conducting Meetings and Training Adults
	2:15-2:45	Goal Setting
	2:45-3:00	Break
	3:00-3:15	Instructions for Behavior Modeling Exercises
	3:15-4:30	Group Preparation Time
Day 2		
	8:30-9:00	Group Preparation Time
	9:00-10:15	Identifying Problems

10:15-10:30	Break
10:30-10:45	Selecting a Problem
10:45-12:00	Analyzing the Problem, Part 1
12:00-1:00	Lunch
1:00-2:15	Analyzing the Problem, Part 2
2:15-2:30	Break
2:30-3:45	Generating Solutions
3:45-4:30	Questions and/or Group Time

Day 3

8:30-9:30	Selecting a Solution
9:45-10:00	Break
10:00-11:15	Creating an Action Plan
11:15-11:45	Following Up
11:45-1:00	Lunch
1:00-2:15	Gaining Approval and Support
2:15-2:30	Break
2:30-4:30	Questions and Evaluation

The first day was spent going over the skills needed to guide the problem solving process and handle group dynamics. The second two days were turned over to the participants. They were divided into groups, given instructions and learning materials (Appendix H), and directed to train the other members in the techniques used in each of the steps of the problem solving process.

The behavior modeling approach was used to improve skills and confidence through demonstrating practice and reinforcement. (This approach and the audio visual materials used were developed by Productivity Development Systems, Inc. of Clearwater, Florida. Both facilitators at CPCC had attended their facilitator training and used these materials at CPCC.) The training provides a specific, step-by-step method for handling a specific situation. The group observed a trained circle leader handle a situation via videotape following specific steps. Then the group leader practiced handling the situation and received feedback and

reinforcement from the rest of the group.

Twenty-one people could attend each workshop. Only ten attended the first educators workshop. Two more workshops were scheduled to be held, but when only two people pre-registered for the second workshop, it was canceled. There seemed to be little interest from educators in learning more about quality circles.

An evaluation sheet was distributed at the end of the first educators workshop. (See Appendix I) The results were very good, averaging 4.6 out of a possible 5.0 scale. Some of the comments are listed on the sample evaluation sheet.

Only two Facilitator Training workshops were planned for industry, but a third and then a fourth one were added due to the demand. Over 60 people attended the four workshops.

The types of positions held by some of these people were:

Plant Manager
Training Coordinator
Labor Relations Assistant
Chief of Police
University Professor
Customer Relations Director
Personnel Director
QC Facilitator
QC Leader (received facilitator training)
QC Member (received leader training)
Private Consultant

An evaluation sheet was distributed at the end of each workshop (See Appendix I). The results were very good, averaging 4.6 out of a possible 5.0 scale. Some of the comments are listed in the sample evaluation sheet.

Training - CPCC Students

Nine instructors accepted our invitation to teach a unit on quality circles in their courses. We were able to expose 138

students to the QC philosophy and process and allow them to experience some of the techniques. The following chart lists the classes and the number of students in each class.

Class	Number of Students
Hotel/Restaurant Management Seminar	37
Medical Records Seminar	8
Business Management Seminar	17
Printing Management	7
Administrative Office Management (night)	15
Human Relations in Business II	6
Community Dental Health	16
Business Management Seminar (night)	12
Business Management Seminar	20

The Hotel/Restaurant Management students carried the experience out of the classroom into the "real world." During the brainstorming session, the students chose "Registration lines are too long" at CPCC. They elected to invite the vice president in charge of registration to attend the next class where the students conducted a cause and effect analysis of the problem. As a result of their efforts, the vice president invited a representative group to make a presentation to the registration department. One student summed up the experience best when he said, "This is the first time since I've been here that anyone has ever asked me for my opinion."

As a result of the unit taught in the Printing Management course, an independent study course was offered the next quarter for printing students interested in joining a quality circle. Six students signed up and the instructor led the circle. The students worked on redesigning the laboratory space to make it more efficient.

Follow-Up Reports

At the end of the project, most of the QC Facilitator workshop participants from the first four workshops were contacted to see if they had started any quality circles. (The last workshop was conducted too late in the project year to gain any feedback.)

Of the ten educators only three had any plans to start a pilot circle at their school in the near future. None of these attempts were a part of a school wide QC program. One person said there was no support from the upper administration to start quality circles. Another person had been asked by his president to present a synopsis of the QC process to the administrative staff. The president was open-minded to the process and it was hoped that an area could be identified in which to start a circle. A couple of the other participants did not intend to start a circle in their school, but had on occasion shared some of the information with local industry.

Of the 36 participants to the QC Facilitator workshop for industry, seven have or will start a pilot circle soon. Two were already QC Facilitators who just wanted to gain further information. Six were being trained to facilitate in an already existing QC program. Seven attended to gain experience in order to lend support to others in their organization starting circles. One person was using some of the techniques to lead discussion groups. And another person was planning to use the information to help set up task forces.

VI. CONCLUSIONS AND RECOMMENDATIONS

The project experience suggests the following conclusions and recommendations.

Conclusions

1. The North Carolina Community College System institutions are not yet ready to consider adopting quality circle philosophy and processes as a part of their management routine, but they should continue to be encouraged to do so. There are educators in the system who see the value of the process and see the need for the community college system to offer QC training to industry and to their students.

2. More and more, industry is interested in starting quality circle programs as a form of employee involvement. The membership in the local chapter of the International Association of Quality Circles was approximately 45 for 1983. For 1984 the chapter has over 100 members. An extra seminar and two extra facilitator training workshops were requested by people in industry. The evidence speaks for itself.

Recommendations

1. The North Carolina Community College System institutions should continue to be encouraged and offered workshops in the quality circle process. Not everyone is ready to embrace the concept at the same time. The information is sought when it is needed most. People continue to ask about quality circles and express a desire to learn more. One of the training specialists with the NC Department of Community Colleges attended the facilitator training. More quality circle seminars and workshops

can be offered through the Professional Development Institute.

2. The needs of local business and industry should be met through CPCC's Custom Course Center, a new organization on campus that will handle extension programs for the college. The coordinator of business programs can arrange QC workshops and seminars for interested organizations and call on local QC facilitators to lead the sessions.

3. The other community college institutions should begin to look at ways they can meet the needs of their own local industries that may be interested in the QC concept.

4. CPCC's business and management courses hould include units on the QC philosophy and techniques. Quality circles have proven to be a nationally recognized method for gaining employee involvement and should be included as a current management philosophy.

APPENDIX A

Overview of Quality Circles

The Japanese have astonished the world. In just over twenty years, they have erased their reputation as "junk merchant of the world" and now lead the world in quality and productivity. A major factor in that remarkable success is the committed, systematic involvement of Japanese employees in quality and productivity improvement. This involvement takes place at all levels through small groups often called "Quality Circles."

The quality circle concept originated in Japan in 1961 as an outgrowth of American assistance after World War II. Quite simply a quality circle is: A small group of employees (three to twelve doing similar work who voluntarily meet on a regular basis to set goals, identify and analyze problems, find solutions, and cooperate with management to implement those solutions or improvements.

First established in America in 1974, circle programs have grown rapidly in industry since 1979. At least 2000 American companies now have quality circle programs.

What do quality circles actually do? First, they learn the "people building" philosophy of quality circle management. This includes recognizing the expertise and contribution of every employee; fostering mutual respect and trust; avoiding gossip and "finger-pointing"; focusing on issues, not personalities; helping members learn and grow; and maintaining members' self-esteem and group identity.

Within this philosophical framework, circle members learn

and apply various problem solving tools, including:

a. Brainstorming

b. Prioritizing techniques

Applying those tools systematically, circles generally follow these steps in completing improvement projects:

Step	Task	People Involved
1	Problem Identification	Members, Others
2	Problem (Project) Selection	Members Only
3	Cause and Effect Analysis	Members, Others*
4	Data Collection	Members, Others*
5	Data Analysis	Members, Others*
6	Solution/Improvement Finding	Members, Others*
7	Circle Presentation to Management	Members, Management
8	Implementation	Members, Others

*Upon invitation by members

A "facilitator" plays a key role in implementing quality circles. The facilitator, well versed in group dynamics and quality circle techniques, trains circle leaders and assists leaders with member training. Typically the circle leader is the workgroup supervisor. The facilitator is not a member of the workgroup, but normally meets with the circle during its first project cycle. Facilitator training is a key objective of this proposal.

Circles involve employees and recognize their achievements. Because participation is voluntary, the sense of ownership and commitment to improve is developed. The implmentation rate for circle recommendations in America is approximatley 90 percent, reflecting the thorough analysis behind circle recommendations.

APPENDIX B

ABSTRACT

QUALITY CIRCLES IN EDUCATION

Following an eleven-month period of study and planning, a pilot quality circle was formed at Central Piedmont Community College (CPCC) in January, 1981.

The potential demonstrated by that circle prompted a grant proposal seeking funds to implement quality circles throughout the institution. This report describes the project funded under that proposal from July, 1981 to November 1982.

Principal objectives of the project were:

(1) Orientation. To orient all top, middle and first line managers to quality circle concepts and their potential for education.

(2) Advisory Committee. To establish a representative advisory group to recommend quality circle goals and policy.

(3) Facilitators. To train resource persons to assist circle formation and training.

(4) Circle Leaders. To train six or more circle leaders.

(5) Initial Circles. To implement six or more quality circles at CPCC.

(6) Training Materials Development. To produce audiovisual and print instructional materials specific to quality circles in education.

(7) Systemwide Awareness. To build an awareness among North Carolina Community College System institutions of the quality circle concept and its potential for education.

(8) Evaluation. To assess the effectiveness of project organization and procedures.

(9) Plan for Systemwide Implementation. To provide a plan for implementing quality circles in interested system institutions.

A total of sixteen workgroup quality circles were formed. These circles completed more than forty improvement projects and the members reported significant improvement in communications, goal setting, trust and teamwork. In addition, seven task force teams were formed to focus on specific problems. Task force leaders were given an orientation workshop on quality circle concepts and leadership. These groups are expected to report by July, 1983.

Approximately 200 CPCC employees have participated in quality circle training or membership. More than 1,700 people representing more than 250 colleges, universities and public schools have attended presentations and workshops led by the project director or facilitators.

Major conclusions and recommendations resulting from this project were:

(1) Community colleges can implement quality circles effectively with instructional and other professional personnel as well as in "blue collar" operational areas. They should be encouraged to do so after study, planning and training.

(2) Quality circle facilitator training should be provided for North Carolina Community College System personnel

in the Western, Piedmont and Eastern sections of the State.

(3) Community Colleges should develop training programs for industry in quality enhancement through employee involvement. These offerings should draw on the colleges' own experience with quality circles for credibility and relevance.

(4) Community college students, especially those in occupational curricula should be taught the concepts, philosophy and techniques of team problem solving through the quality circles process. This instruction should include internships in businesses with circle programs whenever possible.

(5) Community colleges should take a leading role in encouraging participative management strategies that involve employees at all levels and recognize fairly their contributions. With proper preparation, based on their own experience, community colleges could make contributions in human motivation, quality of work life and product quality that would rival hoped-for advances in high technology training. The fundamental value of human creativity and motivation to cooperate must not be overlooked in the rush to high technology. Advances in both areas are required if American industry is to compete in world markets and regain those lost at home.

APPENDIX C

Mid-Western N.C.

Professional Development Institute

QUALITY CIRCLES:
QUALITY ENHANCEMENT THROUGH EMPLOYEE INVOLVEMENT

SEMINAR CONTENT:

This seminar is for interested decision makers that are considering ways to provide for active employee involvement to address quality of service and productivity and the quality of worklife but are not yet aware of Quality Circles' powerful potential, or are aware of the potential but need to know how to begin and sustain a circle program.

Topics covered will include:

* Why Implement Quality Circles?
* How Circles Operate and What They Accomplish
* Why Management Supoort Is Needed to Sustain Effective Circle Operation
* Steps to Implementation

This will be a more in depth look at Quality Circle implementation than was presented last year by Dr. Lynn Moretz and Dr. Don Shepherd. The seminar will be a precursor to a Quality Circle Facilitator Training workshop to be offered next spring.

ABOUT THE SEMINAR LEADERS:

Doris McIlwain is the director of the grant project, "Quality Circles: Training for Community College Educators and Students and the Businesses They Serve." She holds a Master's Degree in Educational Media from UNC-Chapel Hill. For the past two years, she has been involved with the quality circle program at Central Piedmont Community College as a facilitator/trainer and became a certified Quality Circle Facilitator.

Dr. Don Shepherd is a facilitator/trainer for the CPCC quality circle program and a consultant in private practice. He holds degrees from the University of Tennessee, Florida State

University, and Nova University. In addition to being a certified Quality Circle Facilitator, Dr. Shepherd has been actively involved in the areas of group process, organizational development, staff development, personal counseling, and performance evaluation during his career.

Host Institution: Mitchell Community College
Rotary Auditorium

Host PDI Council Member: Ms. Carolyn Kelly

Date: Tuesday, November 1, 1983

Time: 1:30 - 4:30 pm

Target Group: Open to all interested personnel.

Note: Please notify Doris McIlwain (704/373-6935) as to the number of participants who plan to attend from your institution so that sufficient materials will be avilable. Thank you.

APPENDIX D

Doris McIlwain
Quality Circles
Central Piedmont Community College
Charlotte, NC 28235

QUALITY CIRCLES IN INDUSTRY

Productivity and Quality Enhancement through Employee Involvement

Co-sponsored by:
Greater Charlotte Chapter
International Association
of Quality Circles

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PERMIT NO. 1177

QUALITY CIRCLES IN INDUSTRY: PRODUCTIVITY AND QUALITY ENHANCEMENT THROUGH EMPLOYEE INVOLVEMENT

This seminar is for interested decision makers who are considering ways to provide for active employee involvement in addressing quality and productivity. Quality Circles enjoy two advantages over other employee involvement concepts:

1 - Members receive brief but highly effective training in problem-solving techniques.

2 - Quality Circles don't just identify problems; they solve them!

Topics covered will include:

* What Quality Circles are
* How they work
* Why they work
* How to implement a Quality Circle program

Choose from one of these dates to attend:

November 30, 1983
December 15, 1983
January 17, 1984

Time: 1:00 - 5:00 p.m.

Place: CPCC Citizens Center
2nd Floor

Cost: free (grant funded)

WHY IMPLEMENT A QUALITY CIRCLES PROGRAM IN YOUR COMPANY?

Experience has shown that a high percentage of suggestions made by Quality Circles are adopted by management, and anyone with a knowledge of employee relations knows what this can do for morale, quality, productivity and overall organizational success.

It does require an investment in time and money to install a Quality Circles program, but a properly conducted implementation soon returns that investment from the benefits derived.

WHO SHOULD ATTEND?

Anyone who is planning to organize, direct, administer or facilitate a Quality Circles effort will find this seminar to be invaluable in planning for quality circle implementation.

PRESENTERS

Doris McIlwain, project director, is a certified Quality Circle Facilitator and has been involved with the Quality Circle program at Central Piedmont Community College for over two years as a facilitator/trainer.

Dr. Don Shepherd is also a certified Quality Circle Facilitator and has been involved with the Quality Circle program at Central Piedmont Community College for over two years as a facilitator/trainer. His background includes work in the areas of group process, staff development, and performance evaluation.

One of the following Quality Circle Facilitators from industry will make a presentation at each seminar and be available to answer questions:

Bruce C. Ainslie joined Westinghouse in 1981 as a Quality Circles Facilitator. During the two ensuing years he has expanded the Charlotte program, branching into areas of white-collar, as well as blue collar circles.

Beverly H. Dickson, Training Coordinator and Quality Circle Facilitator for Pneumafil Corporation, Zellweger-Uster Corp., and Luwa Corp. To date the Quality Circle Program has saved $98,000 with only 14% employee involvement. She has worked with both Quality Circles and Task Force Circles.

Frances C. Leitner joined Westinghouse in 1980 as Quality Circles Administrator for Westinghouse Turbine Plant. She is a member of the Westinghouse Quality College faculty, a training resource at Westinghouse Productivity and Quality Center in Pittsburgh, Pa.

PRE-REGISTRATION FORM

(Enrollment limited - register early)

Name _____

Title _____

Company Name _____

Address _____

_____ Zip _____

Date attending _____

.... or register by phone
(704) 373-6935

Return to:

Doris McIlwain
Quality Circles
Central Piedmont Community College
P. O. Box 35009
Charlotte, NC 28235

GREATER CHARLOTTE CHAPTER OF IAQC

The International Association of Quality Circles is the professional association serving those involved with Quality Circles. Through organizing conferences, conducting training, publishing periodicals and educational materials, and through support of local chapters — it serves to promote widespread application of the concepts of Quality Circles.

The members of the Greater Charlotte Chapter of the IAQC willingly share their experience with each other and are available to offer you assistance as you develop and implement your own Quality Circles. We invite you to attend our meetings on the last Tuesday of each month at McDonald's Cafeteria on Beatties Ford Road at I-85. For more information call Martha Jenkins, chapter president, at 892-7100.

QUALITY CIRCLES: TRAINING FOR COMMUNITY COLLEGE EDUCATORS AND STUDENTS AND THE BUSINESSES THEY SERVE

Japanese and American businesses have demonstrated that Quality Circles can improve quality, productivity, and morale. In 1980 Central Piedmont Community College began the first application of quality circles in an educational institution. As a result, The Quality Circle program enabled CPCC to train facilitators and leaders and implement 19 circles involving 125 people out of some 560 full time employees.

This recently funded project, "Quality Circles: Training for Community College Educators and Students and the Businesses They Serve" will provide low cost instruction in quality circle philosophy and techniques (including facilitator training) for North Carolina community college educators, CPCC students and local businesses. The goals include improved quality and productivity of management, in both business and education and increased employability for students.

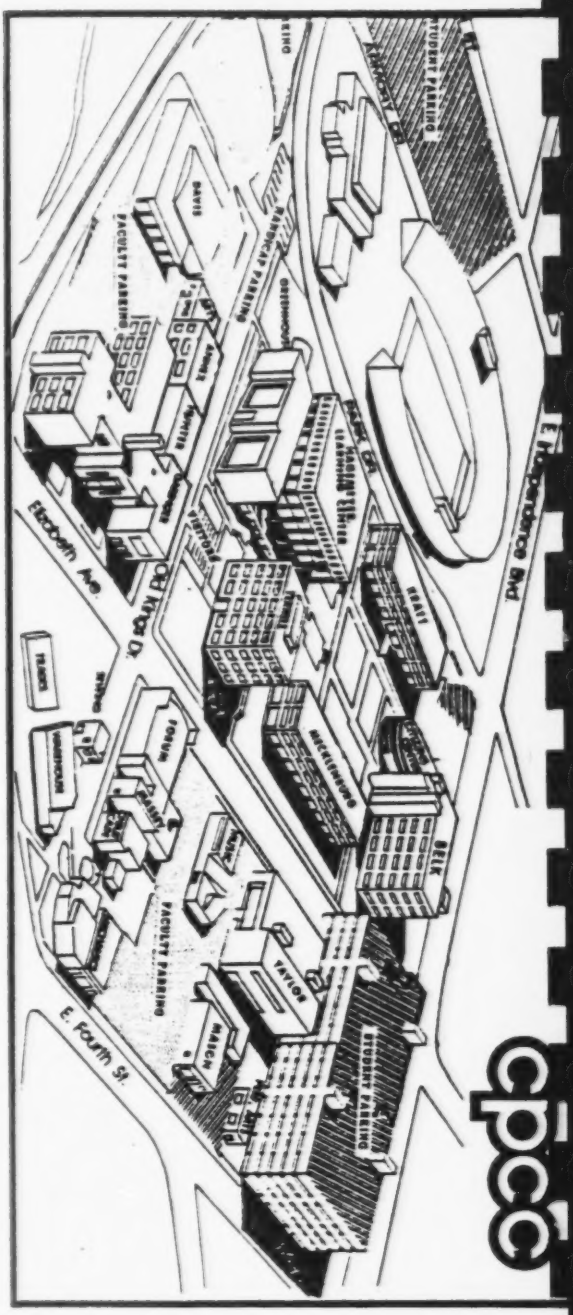
Project Director
Doris McIlwain

PROJECT SITE
CENTRAL PIEDMONT
COMMUNITY COLLEGE
P. O. BOX 35009
CHARLOTTE, NORTH CAROLINA 28235

Funded by:

Office of Occupational Education
Research Services
Div. of Planning and Research Services
North Carolina Dept. of Community Colleges
Raleigh, North Carolina 27611

CPCC is an equal opportunity institution



POST OFFICE BOX 35009
CHARLOTTE NORTH CAROLINA 28235
TELEPHONE 704 373-6633

cpcc

CENTRAL PIEDMONT
COMMUNITY COLLEGE

September 23, 1983

Central Piedmont Community College has been involved with Quality Circles* over the past two years. We have established our own quality circle program and now we want to offer our services and expertise to industry. We are planning for the near future to offer management overview seminars and quality circle facilitator training to local companies but first we would like to know how interested you are in the quality circle concept.

Enclosed are a few questions that we would appreciate you answering. Your answers would be invaluable in helping us plan for future programs.

We are presently planning management overview seminars for November and December. We realize you are very busy, but if you could please return the questionnaire by the end of October to:

Doris McIlwain
Central Piedmont Community College
P. O. Box 35009
Charlotte, NC 28235

Please accept our thanks for your help.

Sincerely,

Doris McIlwain

Doris McIlwain, Project Director
Quality Circles: Training for Community College Educators and the Businesses They Serve

*A Quality Circle is a small group of people who do similar or connected work and who meet regularly to identify, analyze and solve work related problems. The process develops a "productivity awareness" within the organization and allows employees to feel more ownership for the work they do.

Quality Circle Information Questionnaire
for
Central Piedmont Community College

1. Does your company presently have an active quality circle program?

14% yes 86% no

If yes, what is the name, address and telephone number of the director of your quality circle program?

2. Do you have an employee participation program known by some other name other than Quality Circles?

1% yes 99% no

If yes, by what name is it known?

3. Is your company interested or looking into the possibility of starting a quality circle program?

70% yes 30% no

4. Would you be interested in attending a management overview seminar at Central Piedmont Community College on the philosophy and techniques of quality circles in preparation for implementing a quality circle program in your company?

60% yes 31% no

5. If quality circle facilitator training was available at Central Piedmont Community College, would you be interested in attending or sending someone?

77% yes 23% no

6. Would you consider a potential employee more valuable if he/she had received previous training in quality circle philosophy and processes?

87% yes 13% no

APPENDIX F

QUALITY CIRCLE PROGRAM GOALS

CENTRAL PIEDMONT COMMUNITY COLLEGE

1. *To encourage management processes which enhance respect for the individual and seek to improve trust, communication and teamwork among workgroup members and between faculty, staff and administration.*

2. *To apply employee expertise and experience more effectively toward improvements in service and worklife quality and productivity.*

3. *To implement, within and between workgroups, voluntary, systematic processes for participation in setting goals, identifying problems and solving problems.*

4. *To recognize and show appreciation for employee contributions toward fulfilling the institution's teaching and service missions at higher levels of quality and productivity.*

IMPLEMENTATION PROBLEMS IN EDUCATION

- Skepticism about QC applicability
- Existing meetings
- Highly educated members
- End of term slowdown
- Lack of budget flexibility
- Defining "productivity" in education and controlling the variables
- Hopelessness

DRAFT
9/3/82

POLICY AND PROCEDURAL GUIDELINES
QUALITY CIRCLES PROGRAM
Central Piedmont Community College

1.0 Definition

1.1 Quality Circles are teams of employees performing similar work who meet voluntarily on a regular basis to set goals, to identify and analyze problems, and to develop solutions. They recommend solutions to the administration, and whenever possible implement the solutions themselves.

2.0 Program Goals

2.1 To encourage management processes which enhance respect for the individual and seek to improve trust, communication and teamwork among workgroup members and between faculty, staff and administration.

2.2 To develop and apply employee expertise and experience more effectively toward improvements in service and worklife quality and productivity.

2.3 To implement, within and between workgroups, voluntary, systematic processes for participation in setting goals, identifying problems and solving problems.

2.4 To recognize and show appreciation for employee contributions toward fulfilling the institution's teaching and service missions at higher levels of quality and productivity.

3.0 Policy

3.1 Membership and Training

3.1.1 Participation as a quality circle team leader or member will be voluntary.

3.1.2 Opportunities for team leader training will be provided for all workgroup leaders. Member training will be provided as teams are formed.

3.1.3 Teams normally will consist of volunteer employees from workgroups as established in the institution's organization chart.

3.1.4 Task force (inter-workgroup) teams may be formed to address special needs.

3.1.5 All employees will be free to suggest problems to any team as potentials for investigation and resolution.

3.2 The Administration Will...

3.2.1 Be supportive of teams by:

(a) Allowing team meetings during regular hours.

(b) Providing adequate meeting areas, materials and supplies.

(c) Providing competent facilitators to assist team formation and leader and member training.

(d) Providing administrative direction and coordination through a program director.

3.2.2 Participate in team problem solving by:

(a) Listening to all appropriately scheduled team presentations.

(b) Replying to recommendations with prompt timeliness.

(c) Giving clear, candid explanations for denied requests or solutions.

(d) Assisting in the expeditious implementation of approved solutions.

(e) Sharing their insight, experience, expertise and appropriate data at the invitation of teams.

(f) Recognizing and crediting teams for problems solved and improvements made in accordance with program goals cited in Section 2.0.

3.3 The Teams Will...

3.3.1 Assure each workgroup member equal opportunity to participate and equal stature on the team.

3.3.2 Be free to select their own projects within guidelines established by the Advisory Committee.

3.3.3 Focus positively on problem solutions, ruling out gossip, finger-pointing, and negatively addressing personalities.

3.3.4 Utilize positive problem-solving processes that encourage input and document the rationale for solutions. Included among these are:

(a) Brainstorming

(b) Setting priorities

(c) Cause and effect analysis

(d) Data collection/analysis

(e) Pareto principles

3.3.5 Schedule regular meetings with consideration of the workloads of those involved.

3.3.6 Work together to identify, analyze, and implement solutions to quality of service, quality of worklife and productivity problems.

3.3.7 Maintain essential minutes of meetings including a listing of action items and those responsible.

3.3.8 Present periodic reviews to the administration on the progress of the team.

3.3.9 Seek to improve communication and problem solving capabilities in accordance with the program goals cited in Section 2.0.

3.3.10 Be disolved only with the consensus of the team, not by unilateral action.

4.0 Organization

4.1 Team Leaders

Typically, the team leaders will be the workgroup supervisor. A team may choose to rotate leadershp duties with the approval and continued participation of the supervisor.

Task force (inter-workgroup) teams may have an appointed leader or they may elect a leader.

4.2 Team Facilitators

Facilitators are responsible for coordination and assistance to teams, including:

(a) Training team leaders and members.

(b) Meeting with teams through their first project cycle and subsequently as needed.

(c) Assistance with preparation of minutes, scheduling meeting rooms, planning presentations and other needs as required.

(d) Providing information and overview sessions on quality circle concepts and techniques for any interested CPCC workgroup, organization or committee interested in improvement.

(e) Actively seeking to facilitate in every practical way the attainment of program goals cited in Section 2.0.

4.3 Advisory Committee

The Advisory Committee will provide recommendations to the administration concerning policy and operational guidelines for the program. It will consist of 9 members representing (1) the instructional divisions, (2) the Faculty Senate, (3) Administrative Services, (4) Plant Operations, (5) President's Cabinet, (6) Learning Resources, (7) Classified Staff, (8) Business Office, (9) Team Facilitators.

The committee will select its chairman and will meet regularly to address needs and develop recommendations in the following program areas:

(a) Goals and objectives

(b) Policy guidelines and operating procedures

(c) Any areas that should be identified as outside the purview of circle teams

(d) Special team recognition and program publicity

(e) Encouraging team formation in all relevant areas of the institution

(f) Evaluation of the program

(g) Encouraging an institution wide commitment to the goals cited in Section 2.0.

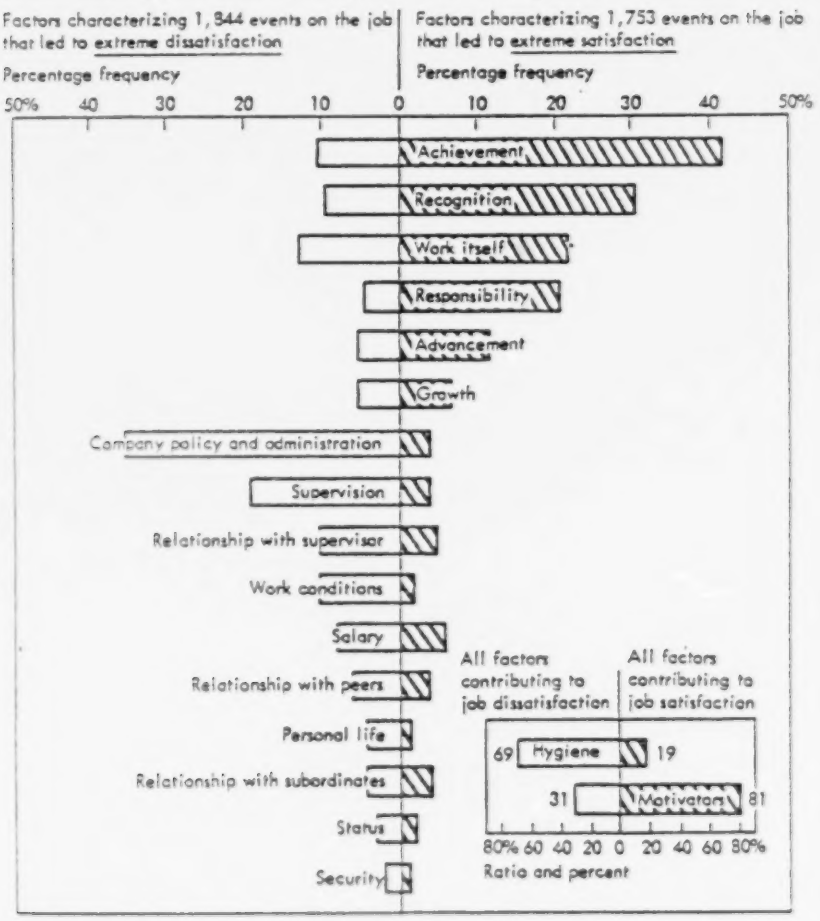
cpcc

MANAGERS' AND WORKERS' ASSESSMENT
OF
FACTORS LEADING TO HIGH MORALE

Morale Item	Ranking	
	Managers	Employees
Good wages		
Job security		
Promotion and growth with company		
Good working conditions		
Interesting work		
Management loyalty to workers		
Tactful disciplining		
Full appreciation for work done		
Sympathetic understanding of personal problems		
Feeling "in" on things		

From: Louis E. Boone and David L. Kurtz Contemporary Business, CBS College Publishing, 1982, p. 169.

Factors affecting job attitudes, as reported in 12 investigations



Taken from:

THE MANAGERIAL CHOICE: TO BE EFFICIENT AND TO BE HUMAN, Frederick Herzberg, Dow Jones-Irwin, Homewood, Illinois, 1976.

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MANAGEMENT THEORIES

A Discussion and Bibliography

Condensed from "PATHS TO POWER" by Natasha Josefowitz

Management falls into four main categories: what motivates people, what managers do, how they do it and what should they do.

MOTIVATIONS

Two authors have described their beliefs about what motivates people. Abraham Maslow says people's needs can be categorized at several different levels with the most basic needs being realized before the next level can be fulfilled. At the bottom of his list of needs are physiological needs (food, shelter, sleep, etc.) and safety needs (protection from danger and deprivation). Only after these are met can the next order of needs be pursued. These are the social needs of belonging (acceptance, warmth) and self-esteem (status, recognition, respect). At the highest level of the hierarchy is the need for self actualization, the realization of the full potential and creativity of each individual. B. F. Skinner says people will repeat behavior that is rewarded and avoid behavior that is punished. Skinner points out rewards and punishments are different for different people.

Maslow and Skinner wrote about what motivates people generally. Frederick Herzberg wrote about what motivates workers. His theory stresses the worker's desire for personal satisfaction. Herzberg's motivators satisfy workers and lead to high performance. They are achievement, recognition, the work itself, challenge, variety, autonomy and promotional opportunity. Then there are hygiene factors which determine whether a worker stays on the job but do not push him/her to perform. These are wages, benefits, the work environment, and the type of supervision.

David McClelland's research focuses on what motivates successful people, those who are already at the top or well on their way to the top of an organization.

1. The ability to set goals and push themselves to achieve those goals.
2. The ability to control factors influencing the achievement of the goals set.
3. The ability to enjoy the work itself.
4. The preference for immediate feedback on performance, a need to know the score.
5. The preference for spending time thinking up ways of doing things better and more efficiently.

Of successful people, McClelland observed those with a predominant need for power were more likely to be executives.

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those with a need for achievement were more likely to be entrepreneurs. those people with a predominant need for affiliation were less successful because they feared disapproval and or separation from supportive peers.

Douglas McGregor attempted to divide managers into two groups according to their assumptions about workers. He called the two groups Theory X and Theory Y Managers. His assumptions about Theory X managers were: most people prefer to be passive, would rather avoid work, are not very ambitious, dislike responsibilities or are incapable of handling it, cannot satisfy their more important needs through work, want security, resist change, are not very bright and can be easily misled. Theory Y manager assumptions were: most people prefer to be active, to lead, control their own lives. prefer work which provides satisfaction, want to get ahead, are capable of assuming responsibility and enjoy doing so, find satisfaction in their work which meets recognition and achievement needs. enjoy the opportunity for challenge and rise to the occasion. possess creativity as well as a capacity to evaluate.

WHAT MANAGERS DO

A manager must be aware of what tasks and responsibilities he/she is assigned, what roles must be played and what strategies and tactics must be adopted to get performance from their staff. Craig Lundberg describes the effective manager as one who sees management in three sequential levels: things, people and ideas. Level One focuses on the manager having the technical know-how to get the job done. Level Two focuses on the social concerns--how to deal effectively with people--ability to delegate. Level Three concerns are conceptual--analyze, synthesize, ask questions, come up with ideas about what needs to be done.

Henry Mintzberg studied a group of managers and from these observations concluded: managers perform three main roles, which he called interpersonal, informational and decisional. In the decisional role, Mintzberg's managers handle conflicts, allocate resources, negotiate for budgets, salaries and deals, and act as entrepreneurs or idea people. In the informational role, managers act as information gatherers, disseminators and spokespersons.

In the interpersonal role, a manager acts as a figurehead (representing their company to the outside world), leaders, (responsible for their workers productivity and for hiring and training, evaluating and monitoring), and as liasons (with their peers and with others outside their units or departments).

WHAT MANAGERS SHOULD DO

Theories about "how to" manage fall into two categories, normative theories and contingency theories. Normative theories

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suggest there is a "best way" to manage. Contingency theories say there is no ideal management style to fit all people in all situations all the time. Normative theorists are Rensis Likert, Robert Blake, Jane Mouton and Chris Argyris; Beth Fiedler, Paul Hersey and Ken Blanchard are contingency theorists.

Rensis Likert developed a hierarchy of management systems and ranked them according to effectiveness. A System I Manager is exploitative - authoritative; a System II Manager is benevolent authoritative, (paternalistic taskmaster), a System III Manager is consultive, checks with others but makes all final decisions and a System IV Manager is participative (decision making is shared with subordinates whenever feasible). According to Likert in this atmosphere trust among employees leads to high performance and more effective leadership.

Robert Blake and Jane Mouton observed managers in action and developed a grid of managerial styles across which they believed managers were either locked into one place or jumped from style to style. Some styles are country club manager, team builder, do nothing manager, production pushers, organization manager. The ideal style is the team builder whose strategy is based upon work accomplishment from committed people and interdependence through a common stake in trust and respect.

Fred Fiedler, another contingency theorist, says a manager's leadership style rests on three characteristics: (1) the power of the leader, (2) the quality of relationship between the leader and those being led and (3) how much certainty or uncertainty there is in the task to be accomplished. An example may be: in an assembly line work setting where the task is certain, there may be no need for a good relationship between worker and manager, but in a research and development department where there is task uncertainty there needs to be good communications and good relationships.

Contingency management theorists Paul Hershey and Ken Blanchard stress a management model based on task ability and willingness to learn. Victor Vroom and Philip Yetton formulated a theory highlighting five varying leadership styles ranging from autocratic to shared decision-making based on the characteristics of the problem to be solved.

OTHER STUDIES

In addition to the theories of management, two studies contribute to our knowledge base, the Hawthorne Effect and the Rosenthal Effect.

The Hawthorne Effect refers to an experiment by Elton May at Hawthorne Western Electric Plant in the 1920s. Groups of workers were observed and no matter how the work environment changed for better or worse, the worker's productivity increased. The study

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indicated the mere presence of observers by outsiders "being the center of attention," spurred people to high performance.

The Rosenthal Effect refers to studies in the 1960s by Robert Rosenthal. School teachers were given IQ scores of their students at the beginning of the year. At the end of the year, the students were retested and those students believed by the teacher to be brilliant did in fact excel while the children considered below average turned in below average test results. What was not told to the teacher was the original IQ scores were approximation of the children's locker number, not a reflection of their intelligence. The teacher's expectations of superior and inferior performance produced the results.

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PEOPLE BUILDING PHILOSOPHY

- *Managers Recognize Workers' Expertise and Seek Input*
- *Provide Opportunities to Achieve*
- *Recognize Achievement*
- *Encourage Creativity*
- *Avoid Gossip and "Finger Pointing"*
- *Avoid Criticism of Persons*
- *Group Members Help Each Other*
- *Encourage Trust and Openness*
- *Provide New Learning--Growth Opportunities*
- *Foster Mutual Respect*

10/82

QUALITY CIRCLES

A small group of employees doing similar work who voluntarily meet for an hour each week to identify quality problems, investigate causes and recommend solutions.

Characteristics of Quality Circles

1. Four to twelve people who work together.
2. Membership is voluntary.
3. All members participate.
4. Immediate supervisor is circle leader--no new organization structure.
5. Members trained in problem identification/analysis/solution techniques.
6. Meet regularly to focus on identifying and solving quality problems relating to their common work function.
7. Problems addressed are chosen by circle.
8. Priorities are determined by circle.
9. Creativity is encouraged; negative criticism, gossip, finger-pointing ruled out.
10. Presentations to management detailing recommended solutions made as circle determines readiness.

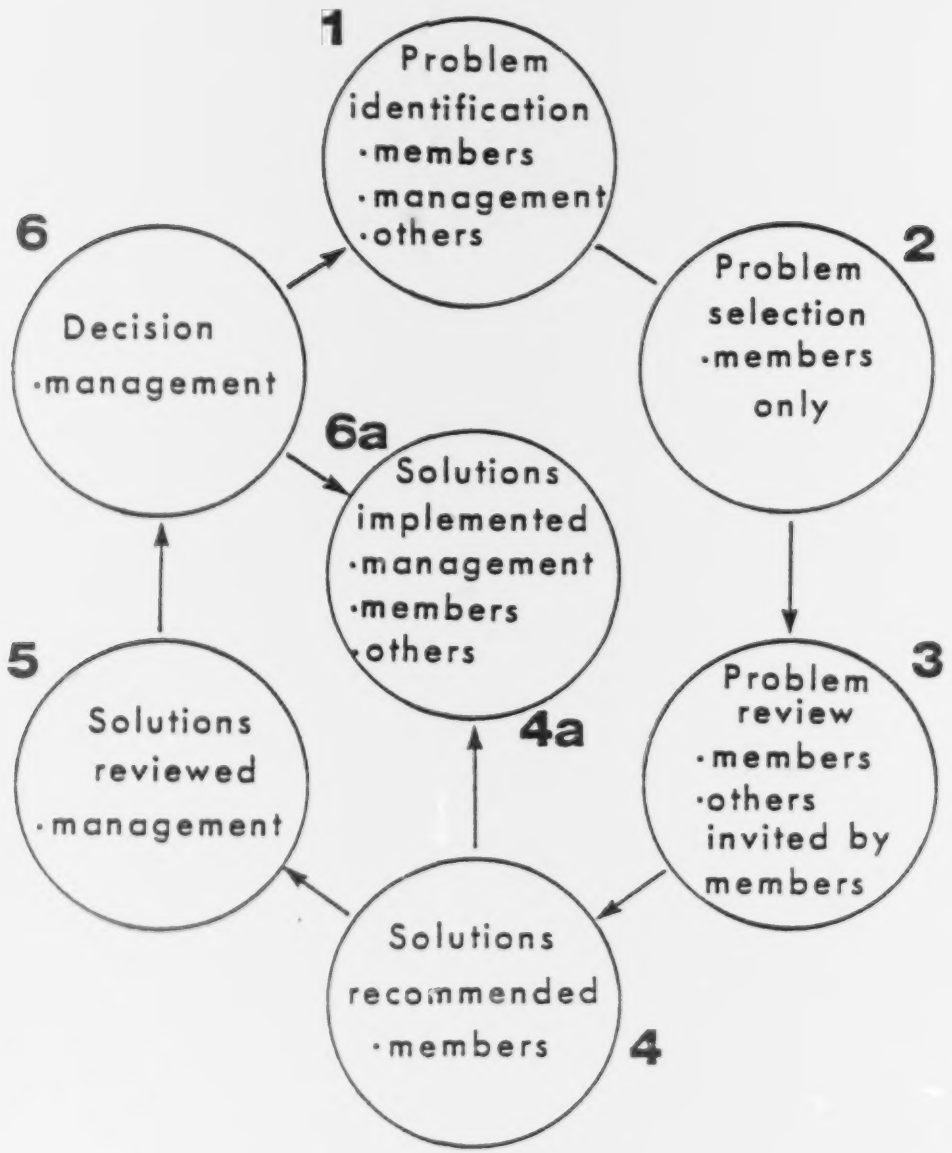
Underlying Concept

To utilize the education, experience and creativity of the workforce to improve communication, product or service quality, the work environment, and employee morale.

Techniques Often Used

1. Brainstorming
2. Cause and Effect (Fishbone) Diagrams
3. Checksheets/Other Data Collection Means
4. Pareto Analysis
5. Charts, Graphs, Histograms
6. Presentations to Management Involving all Members

How A Quality Circle Operates



10/82

BASIC CIRCLE PROCESS

1. IDENTIFY GOALS/PROBLEMS
   - brainstorming
   - ideas from non-members
2. SET PRIORITIES
   - discussion / voting / consensus
   - decision grid
3. SELECT PROBLEM (PROJECT)
   - pareto analysis / consensus
4. PREPARE CAUSE AND EFFECT DIAGRAM
   - focused brainstorming
5. COLLECT DATA
   - checksheets
   - surveys, etc.
   - process flow
   - function analysis
6. ANALYZE DATA
   - pareto charts
   - histograms
   - time study
   - cost/benefit
7. PREPARE RECOMMENDATION
   - based on data
   - "win-win" philosophy
8. MAKE MANAGEMENT PRESENTATION
   - all members participate
   - communication
   - recognition
   - "win-win"

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ELEMENTS OF A SUCCESSFUL PROGRAM

- Supportive Management
- People Building Philosophy
- Voluntary Membership
- Projects Are Circle (not individual) Efforts
- Leader Gets Participation From Everyone
- Training Is Provided To Members And Management
- Projects Are Related To Members' Work
- Quality Consciousness Is Developed
- Members Select Problems/Goals, Set Priorities, Time Frames
- Teamwork, Trust, Positive Communication Encouraged
- Involvement, Recognition Provided
- Members Solve Problems, Not Just Identify Them

POTENTIAL PROBLEMS

- Lack of management understanding and visible support
- Inadequate leader training/preparation
- Failure to involve interrelated units/organizations
- Overemphasis on quick financial payback
- Poor record keeping
- Lack of publicity

STEPS TO QUALITY CIRCLE IMPLEMENTATION

1. Research by Study Team
2. Attend Seminar
3. Witness Quality Circles In Action
4. Make Decision To Start
5. Consultation
6. Set Up Steering Committee
7. Select/Train Facilitator
8. Conduct Base-Line Measurement
9. Develop Implementation Plan
10. Present Plan To Management
11. Develop or Purchase Training Materials
12. Conduct Leader Training
13. Orient Employees
14. Form Pilot Circles
15. Conduct Member Training
16. Evaluation
17. Expansion

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that they are employable for this role, no network to help them along the way. If a counselor, social worker, etc. did present him or herself, would his or her jargon be compatible with yours? After all, a counselor deals with therapy, with mental health, not with return on investment. Besides, do you know of anyone with this background who has succeeded as a facilitator? It is easy to see why a steering committee member might look negatively on a candidate with a counseling background.

However, who will you employ instead? Will it be the person at the next desk who never seems to have enough to do? The up and coming manager who so successfully developed the new product, or set goals admirably for the division, or restructured the debt so creatively? Perhaps it will be the manager who knows all there is to know about statistical quality control, or the one who has shown the way in creating growth in productivity. Any one of these people might make a good facilitator, and then again, any may fail.

Ouchi, in his best-seller, *Theory Z*, describes the skillful leader as one who "does more listening than talking. What matters most is the skill of observing the pattern of interaction in the group and knowing when to intervene."[1] Counselors are trained to do this. Does this reinforce your worst fears? Will the Circle members be on a gigantic couch with a silent counselor nodding at all their remarks? No, that would be inappropriate to the goals of a Quality Circle group. The counselor has been trained to be an expert in group process. He or she should be aware of the roles people tend to play in groups, the hidden agendas that interfere so frequently with the stated agenda, the dependency a member may place on the leader, the phases of group development. He or she can maximize the group's effectiveness by being a skilled listener, communicator, and student of effective techniques for re-directing and motivating the group.

Quality Circles have succeeded because they uniquely utilize the significant contributions workers can make when they are taught simple statistical tools and enabled to use them effectively in a group setting.

The choice of facilitator will always be a vital one. I hope that the debate will always continue as to how to pick a facilitator, and that counselors will be added to the list of professionals who might competently perform the role.

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[1] Ouchi, William G., *Theory Z: How American Businesses Can Meet the Japanese Challenge*. Reading, Ma.: Addison Wesley 1981. Pg. 107.

Role of Management in Quality Circle Implementation

By Bernard J. Perry

Quality Circles Defined

In order to discuss the role of management in Quality Circle implementation we need to first define Quality Circles. My intent is to focus on the following definition:

"A Quality Circle is a small group of people who do similar work and, who voluntarily meet together on a regular basis to identify, analyze and solve quality and other problems in their own work area."

We could spend quite a bit of time discussing the various aspects of this definition, but for now I'd like to concentrate on the last part of the definition which indicates that a Circle identifies, analyzes, and solves problems. Management's role, simply stated, is to create the environment and the means by which such activity on the part of a Quality Circle can successfully take place.

How Circles Operate

Let's take a look in more detail as to how a Circle operates. The process can be described with eight major steps as shown in Figure 1. The first step involves the identification of a list of problems in the Circle's own work area. This list is usually developed by the Circle members themselves. Nevertheless, one role management can play at this point is to recommend problems that should be included on the list. Such recommendations must of course be made in such a way as to

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THE QUALITY CIRCLE PROCESS

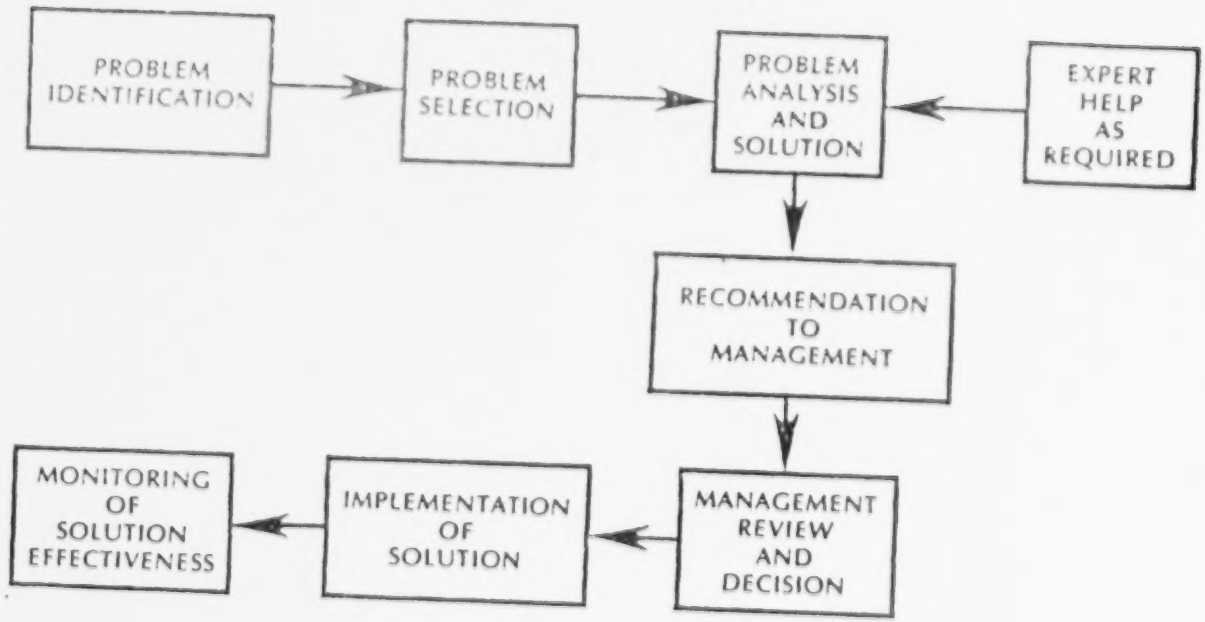

FIGURE 1

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KEYS TO SUCCESSFUL QUALITY CIRCLES

- Substantial Study and Planning is Done Before Starting
- Management is Actively and Visibly Supportive
- A Functioning Steering Committee Oversees the Effort
- A Working Facilitator is Assigned
- Participation is Voluntary
- People-building Is Emphasized
- Training is Provided
- Teamwork is Encouraged
- Recognition is Provided
- Members Tackle Problems Within Their Area of Expertise
- Circles Complete All Steps of the Circle Process

FIGURE 2

not imply that management is trying to force the Circle to pick a particular problem. This point becomes more apparent in considering the next step in the process, the actual selection from the list of problems of one which the Circle wants to try to solve first. It is crucial that the Circle members themselves make this decision.

Management's role is to create the environment and the means by which such activity on the part of a Quality Circle can successfully take place.

There is a crucial role which management plays concerning the selection step, but the related action needs to have taken place long before the Circle has reached this point. In initially setting up the Circle activities in the organization a key role of management is to clearly define what types of problems are appropriate for Circles to tackle and which are not. For example, Circles should not address problems related to personalities, personnel policies, employment practices, union matters, etc. Such exclusions should be clearly stated by management in the form of some written policies concerning the Circle activities.

In the third step of the process the Circle members analyze the problem they have selected and develop solutions. If they are truly working on a problem in their own area, they are good candi-

dates for analyzing the situation. This is especially so assuming they have received training in certain problem solving techniques during their earlier meetings. This points up another key role of management. Management must commit to the training aspects of successful Quality Circle activities. We'll discuss this in more detail later. Occasionally a Circle needs assistance from other areas of the organization as shown by the offset block in Figure 1. Management's role here is to assure that all segments of the organization are aware of their own role in assisting the Circle when called upon.

Define what types of problems are appropriate for Circles to tackle.

Having developed one or more possible solutions to the problem, the Circle now presents its recommendations to management. This is done through a formal presentation given by all members of the Circle to various concerned managers. The role of management in this step is quite obvious. For many workers the presentation to management is the first time they've stood in front of a group of managers to talk about their work, their problems and their ideas for improvement. It is critical that management be attentive, patient and supportive. Don't misunderstand. I'm not recommending that management allow the Circle to get by with presenting less than complete information and support for their ideas. Indeed that's a very dangerous thing to do. I am suggesting that each manager at the presentation should empathize with each Circle member perhaps by simply recalling the first time he or she made a speech before such a group.

The next step involves perhaps the most critical aspects of management's role in the entire process. Assuming the Circle members were not able to implement their solution on their own, management must now decide whether or not the ideas have merit. I know of a few unfortunate cases where management accepted poor recommendations by a Circle just so the Circle members' feelings would not be hurt. Needless to say, they regretted their action in the long run. If the ideas presented are not acceptable it is imperative that management indicate such. It is also critical, however, that management explain why the suggestions must be rejected. In any case, when management is unable to give a decision at the time of the management presentation, it is essential that they feed back to the Circle on a timely basis the status of the decision.

There is an often overlooked role for management related to this step of review and decision

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which if properly carried out can assure resounding success for the whole effort. Management should not wait until a Circle makes a presentation to find out what they've been working on. They should not even just wait for the Circle leader or facilitator to come see them. The most supportive managers are those who take the initiative on a regular basis to stay in touch with the status of Circle projects which affect them and concerning which they may be required to make a decision.

Each manager should empathize with each Circle member.

The final two steps of the process—implementation and monitoring—generally are the responsibility of the Circle. Management's role here is no less crucial however. Management needs to stay involved and see to it that implementation and follow-up are properly completed and that other organization's which need to play a part in these areas are doing so.

Keys to Success

Let's return to something I stated earlier: Management's role is to create the environment and the means by which the Quality Circle process can successfully take place. Experience indicates that companies with the most successful Quality Circles activities have certain things in common and that often organizations having significant Circle failures are missing one or more of these elements. Figure 2 lists what I believe to be the most critical keys to successful Circle activity.

Management accepted poor recommendations just so the Circle members' feelings would not be hurt.

Don't misunderstand. I'm not saying that these are absolutely the only things related to the success of Circles. I'm not saying that no organization ever succeeded with Circles without all of these characteristics. I am saying that the chances of success are greatly enhanced when all of these elements do exist.

People often remark that the basic concept of Quality Circles is a simple one. It may indeed be a simple concept but the implementation of the concept can be quite complex. Companies with successful Quality Circles often spent quite a bit of time and effort investigating the concept and planning its implementation long before they actually conducted their first Circle meetings. Conversely, more than one organization has deemed Circles a failure having attempted to implement the concept after only reading a few articles in some magazines. To most organizations, the introduction of Quality Circles represents a significant change in the way management relates to the workers and

in the way workers relate to management. It should not be undertaken lightly. To assure success, everyone needs to have a fairly good idea of what they're committing themselves to. Management's role is clear: They must ensure that adequate study and planning is done prior to a decision to start.

Supportive managers are those who take the initiative to stay in touch with the status of Circle projects.

Once the decision has been made then active support at all levels of management is necessary. Expecting total management support, that absolutely every manager in the organization will fully endorse Circles from the very start, is unrealistic. But it is important that significant amounts of support exist in those areas where Circles are first started as well as in support organizations upon which the Circles may have to rely. Management can demonstrate support through such actions as dropping in on Circle meetings, including Circle activities in overall organizational goals, responding positively to good Circle recommendations, and otherwise visibly promoting Circle activities.

Most successful Quality Circle efforts have been achieved through the use of an organized and active steering committee. This is a group of managers and other key people in the organization who want Circles to succeed and who can make it happen. It is these people who establish the overall plan of action for Circle development and also see that the plan is carried out. One key task of the steering committee is the selection of a Quality Circle facilitator. This is an individual who coordinates the day-to-day operations of the entire Quality Circle effort. He or she works directly with Circle members and leaders, as well as other personnel throughout the organization in an effort to assure that any obstacles to success of Circle activities are overcome. The facilitator is a member of the steering committee and serves as a vital link between management and the Circles. Companies with successful Circles have made sure that the facilitator role is an active and legitimate one, and not just a job given to someone already burdened with too many things to do. Management's role then is to see to it that a facilitator is provided and that the individual selected is given the means to accomplish the job and is then held responsible for doing it.

Expecting that every manager in the organization will fully endorse Circles is unrealistic.

Some controversy exists concerning the voluntary issue of Quality Circles. Not all would

agree with my listing it as a key to success. However, I do think all would agree that it is important to give serious thought to this issue prior to starting Circle activities. I believe strongly that not everyone needs nor wants to participate in Quality Circles. Indeed, I know many workers who do not attend Circle meetings in their area but who are the first to offer help when Circle members ask for it. When asked what they think about Circles such employees often say: "It's one of the best things this company ever did!" When asked why they then do not participate in the meetings they might say: "I never have liked sitting in meetings," or "It's important that I stay on the job so the rest of the people can be in the meeting," or countless other reasons that I've heard. I can't help but believe that forcing such individuals to attend the meetings despite their objections would be a detriment to their willingness to help as well as to the overall functioning of the Circle itself. Management's role in this area is to give serious thought concerning the voluntary issue and to assure that once the decision is made it is carried out uniformly throughout.

The facilitator is a vital link between management and the Circles.

You have no doubt heard that Quality Circles have often resulted in significant improvements in quality, productivity, operational costs, safety and so on. Such results have indeed been observed and companies with successful Circles are certainly pleased by such outcomes. But in addition to the concern for such tangible areas there is often a less tangible theme. Companies with successful Circles usually display an equal, if not greater, interest in the people-building opportunities provided by Circle activities. These organizations recognize that there is value in helping employees to experience personal growth and to discover and use more of their untapped potential. The company which focuses solely on tangible results and neglects the people-building areas may well be disappointed when their Circle activities cannot be sustained for the long term. Management's role in this area is obvious and needs no further explanation.

Some controversy exists concerning the voluntary issue of Quality Circles.

The first leader of a Quality Circle is usually the first-line supervisor in the area. It isn't fair to ask supervisors to start a Circle in their area without training them in the skills that will be required to do it correctly. Nor is it fair to ask a group of employees to analyze and solve problems unless they've

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also been given some basic problem-solving skills. And of course the facilitator, who is charged with overall coordination of the activities, requires adequate training. Companies with successful Circles typically provide for eight to ten hours of Circle member training, usually during the first Circle meetings, twenty-four to forty hours of Circle leader training, and forty or more hours of facilitator training. If management truly expects to reap the rewards it hopes to gain from Circles, their role is quite clear: To plan and provide for such training.

The company which focuses solely on tangible results may well be disappointed.

The next two items on the list of keys to success are fairly self-explanatory. Encouraging teamwork and providing recognition for accomplishments will be everyone's responsibility. But everyone, especially Circle members and leaders, will take their cues from management. Any significant evidence of in-fighting, internal competition, finger pointing, etc. will painfully erode any positive effects of the Quality Circle efforts. Management must prove through words and deeds that the purpose of Quality Circle activities is to solve problems and not to affix blame.

The final two keys to success are closely related. The most successful Circles are those which complete all the steps in the process, not short cutting, not jumping to conclusions and those which stick to solving problems in their own area where they're the experts. That's not to say that successful Circles never work on problems with other groups.

Go slow. Don't get in a big rush about Quality Circles.

Indeed they do. But they do so only after they've tackled one or more problems solely in their own area, and only when it's done in the spirit of teamwork and mutual regard for the other groups involved. Management's role in these two areas comes down to insisting that Circles follow all steps of the process before accepting recommendations, and to encouraging Circle members to work on only those problems for which they are the experts. At the same time, management may have to assure that mechanisms do exist—perhaps outside of Quality Circle activities—by which other issues can at least be surfaced.

Conclusion

So the role of management in Quality Circles is multi-faceted. It is an absolutely essential role. I wish I had a peso for every time I've heard a Quality Circle facilitator complain: "Management just isn't supportive!" Assuming the

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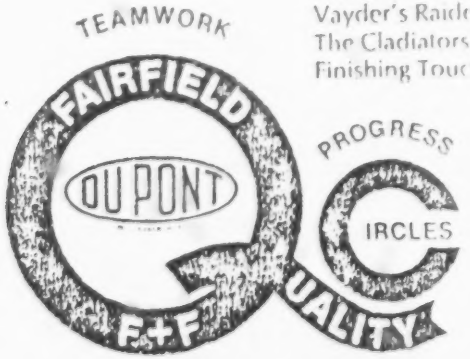
complaint has merit, perhaps it could be better stated: "Management isn't performing its role." This then leads to a somewhat less volatile surmise: "Perhaps management has not been told their role." Approached from this perspective the aforementioned facilitator complaint takes on the characteristics of a problem for which many solutions can be developed.

The purpose of Quality Circle activities is to solve problems and not to affix blame.

If there's one bit of advice I'd like to give it's this: Go slow, don't get in a big rush about Quality Circles. It's too important. Take your time. Investigate the concept thoroughly before you start. And once you start—perhaps you already have—be patient. Management, be patient with the Circles as they try and perhaps fail on a given project. Encourage them to try again. Circle members and leaders, be patient with management. If they don't see the light right away, explain it again. If your ideas are supported by thorough analysis you'll get your point across. And when you do, there will be reason for everyone to celebrate.

REGISTRY OF CIRCLE NAMES

COMPANY	CIRCLE NAMES
E. I. du Pont de Nemours & Co. Fairfield, CT	The Mixmasters Great Expectations The Filtrators Vayder's Raiders The Cladiators Finishing Touch



"PUTTING IDEAS TO WORK"

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"QUALITY CIRCLES IN THE SERVICE SECTOR"

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Most of the American workforce do not help make products anymore but rather provide services to other institutions or directly to consumers. According to some economists, it is this shift from manufacturing to services that underlies our low productivity rate rather than the inefficiencies of a few industries relative to their international competition. It is much more difficult to obtain productivity improvements in the service sector, and when obtained, they tend to be relatively modest.

Any solution to the productivity crisis must ultimately deal with the service sector. But what exactly does one mean by productivity improvements in services? How does one measure higher productivity in a symphony orchestra or a law firm? The answer to these questions lies in part in the concept of quality. The consumer has begun to develop a quality awareness that effects the service industries as much as manufacturers. Historically, the rising standard of living that Americans have come to expect or even demand has been due to a rising standard of material existence (more and better products). But today, cash machines that effectively provide 24-hour banking services and psychiatrists who help us cope with such machines are every bit as important to our standard of living as is another brand of toothpaste. While the debate about quality in American industries centers around manufacturing and automobiles in particular, the service sector is by no means exempt from the demands of consumers for improvement.

The media have apparently conceded the superiority of Japanese products to American products in many industries and are now asking, "If Japan can do it, why can't we?" Surprisingly, many of the tools and techniques used by the Japanese to assure quality were ideas that originated in the United States—zero defects, quality assurance, the "human relations" approach, work councils, and management by objectives, to name a few.

One of the techniques used by the Japanese and now being explored by

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U.S. manufacturers is the "quality circle." A quality circle is a small group of employees doing similar work who voluntarily meet regularly to discuss quality problems, analyze the causes of the problems, recommend solutions for management's consideration, and, where possible, take action themselves. The quality circle has produced spectacular results in Japanese companies and is being "Americanized" by U.S. industry. However, little attention as yet has been directed at using circles in the service sector of the economy.

Setting up a quality circle

Can the concept be applied in the service sector of the economy? To date, quality circles have been implemented in over 300 organizations in the United States with varying degrees of success. However, very few have been installed in organizations such as banks, insurance companies, hospitals, and government agencies. The reason for the growing interest about Q.C. in the manufacturing sector may be that foreign competition has made our manufacturers quality conscious. The absence of quality circles in service industries is primarily due to a lack of quality consciousness rather than any limitations in service industries to implement such circles. Such lack of concern, however, may prove to be extremely shortsighted. The consumer is well ahead of the management of service industries in developing a quality consciousness, and foreign competition may very well be forthcoming, particularly in banking.

While the operation of a quality circle involves those employees who directly provide services, management plays a critical supportive role. In the larger sense, it is the management of service organizations that must develop a sense of commitment to quality within the organization and the rationale for this commitment. An organization's executives must have the trust and confidence in their employees to place operational decisions for quality at its lowest levels. Finally, managers must be willing to commit the resources necessary for the training of quality circles and the maintenance of circle activities.

Quality circle training

Some American manufacturers retain full-time "facilitators" to train quality circle leaders and members. Others employ outside consultants. Circle leaders must go through training in leadership skills, adult learning techniques, motivation, and communication techniques. The circle leader, who is typically a supervisor, must be trained to work as a group member and not as a boss. The quality circle itself is trained in the use of

various measurement techniques and quality strategies, including cause and effect diagrams, histograms, and various types of check sheets and graphs. More advanced circles move on in their training to learn data collection, data arrangement, control charts, stratification, scatter diagrams, and other such techniques. The success of quality circles in Japan is due to this emphasis on the analysis of statistical information.

A typical quality circle includes five to ten members. If the department requires more than one circle, a second leader is trained and a circle formed. The circles should be encouraged to draw upon the organization's management and technical resources to assist in solving problems. Weekly or monthly circle meetings are held on company time on company premises. Where companies have unions, the union members and leaders are encouraged to take an active role in the circles—to attend leader training and to become fully aware of circle principles. The quality circle program is usually directed or supervised at the managerial level by a steering committee.

The functions of the quality circle

Quality circles can accomplish the following positive objectives in the service sector:

1. Reinforce an awareness of quality so that it becomes a performance objective rather than a residual effect. Quality is not an abstraction that pervades the atmosphere in diffused form but is rather something that must be specifically identified so that actions with respect to it may be taken.
2. Once there is an awareness of the quality dimension, quality circles can develop operational definitions or measures of quality. These might be statistical measures such as the average time to receive or perform a service, the number of errors in a given time unit in conjunction with providing the service, and the number of complaints received. In addition, there may be general indicators of quality such as market share or objective or external ratings.
3. With an operational definition of quality and training in statistical techniques, a quality circle can monitor changes in quality. Declining quality can be identified much earlier and the source of the decline more accurately pinpointed.
4. Once the source of a problem is accurately identified, it is much easier to come up with appropriate solutions. Because a quality circle involves more than one hierarchical level within the enterprise and because quality awareness is extended throughout the com-

pany and becomes a part of the organizational climate as a whole, implementation of solutions is a more straightforward process.

This process is identical to the operation of quality circles in U.S. manufacturing companies and Japanese organizations.

Benefits of quality circles

There are two levels at which benefits from a quality circle may accrue. The first consists of actual improvements in the quality of service. In addition to improvements, serious and sustained declines in various quality measures may be avoided through statistical monitoring. In the early stages of a circle, baseline measures of quality are established so that future changes attributable to the actions of the quality circle can be monitored. This helps verify the effectiveness of the circle as well as identify those quality improvement efforts that are successful.

The second level of benefits from a circle program stems from attitudinal changes on the part of participating employees. A quality circle, in effect, redesigns a given member's job by adding new dimensions to it.

Some service-sector jobs, like some manufacturing tasks, can typically be characterized as boring, repetitious, uncreative, mechanistic, and demeaning. Such positions are associated with low performance, poor attitudes, and high absenteeism. Quality circles challenge and stimulate the workers in these jobs by encouraging them to use higher-level skills to solve nonroutine problems. Workers use a variety of analytical skills in their problem-solving efforts.

The nature of the quality problems pursued by circles typically go beyond the narrow scope of any particular job, and employees in circles tend to see their role as more meaningful than the mindless repetition of a specialized function. Because the circle is a decision-making and policy-forming unit, participants also feel a greater sense of autonomy. These attitudes are reinforced by feedback from customers, management, and actual changes in the group's performance whether directly observable or through significant statistical movement in quality measures. Finally, because of the participative nature of quality circles, a greater sense of group cohesiveness can develop among team members. In Japan, it is not unusual to see workers turn down transfers to better paying, more prestigious work because of their reluctance to leave their particular quality circle.

The attitudinal changes employees experience from participation in quality circles can be measured. Ideally, work-related attitudes should be measured before and after quality circles are formed and functioning.

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The bottom line

There have been several fundamental changes in the economy over the last few decades that make the concept of quality circles in the service industries deserving of serious consideration. One of these is simply the growth of service industries. Another is the growing importance placed on the quality of services we receive (and perhaps perform). An appreciation of quality or quality awareness appears to be re-emerging in the public in general and in the consumer in particular. This may be a temporary, faddish reaction against the disposable, nonreturnable, planned-obsolescent society. On the other hand, this emphasis on quality may be as profound a change as the shift to smaller, fuel-efficient automobiles on the part of the consumer.

Finally, quality circles are responsive to a new type of worker who demands more meaning in the work he or she performs.

The result is an unprecedented challenge to the ingenuity and flexibility of managers in the service sector of the economy. The managers in the service sector, however, have a great advantage over the managers in many of our declining industries. They may attempt such innovations in the workplace as quality circles as a proactive initiative rather than as a desperate response to rapidly changing circumstances. ■

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INSIGHT
FORUM FOR AN INTERPRETIVE LOOK AT INTERNAL AND EXTERNAL EVENTS AFFECTING SPERRY

Quality Circles: Key to White-Collar Productivity

David Dallob
Staff Vice President
Operations Development
Sperry Corporation

Before:
New York Chamber of Commerce and Industry

When I was invited to take part in this panel, I went straight to my vice president's Rule Book to find some management inspiration. I found two maxims to live by:

- First: Under carefully controlled conditions, organizations behave as they please.
- Second: A committee (or a Quality Circle) is a group of persons who find a common objective, then meet periodically to change it.

I have mixed feelings about those rules. On the one hand, they're facetious; on the other hand, they ring true . . . especially when we deal with management concepts like quality circles.

At Sperry, we keep that in mind lest we get too pious about what we're doing and what our goals are.

Sperry's experience with both blue and white-collar quality circles began about three years ago. Most of it has been gained during the past six months.

Through the middle of this year we've had more than a thousand people involved in 155 circles.

But, while our growth chart looks good, we make no claims to expertise. A thousand people is only a little more than one percent of Sperry's total employment.

However, we have learned some lessons which may be useful to others. And, while I'm going to focus on *white-collar circles* today, the lessons tend to apply to both.

The principal things we have learned are that:

- The quality circle concept must fit your organizational climate to be successful. It does fit at Sperry and I'll describe why in a moment.
- The concept, as we have applied it to date, has to be a logical extension of other management systems that you use day-to-day.
- And, the quality circle is a human resources management *tool* . . . not an *objective*.

White-Collar Productivity

I'll elaborate on those points during my talk, but before I get into the details of Sperry's experience, I think it'll be helpful to sketch the background of the problem that we share with other organizations — white-collar productivity. 73

First of all, there has been a very rapid shift in the United States' work force into white-collar work.

Since 1950, the white-collar share has grown from 37 percent to more than half.

Obviously, this means that a growing share of the burden for productivity increases in all sectors — including manufacturing — will fall upon the white-collar worker.

In 1980, U.S. white-collar operating costs amounted to $795 billion . . . nearly one-third of the gross national product. Of those costs:

- Professionals accounted for 32 percent.
- Managers accounted for 41 percent.
- And clerical costs amounted to only 27 percent.

When we break those costs out another way, we see that:

- Compensation accounts for three-fourths of the total of white-collar operating costs.

This demonstrates that the white-collar environment is very labor-intensive.

And that the costs of this labor intensity are concentrated on people like you and me — professionals, managers, technicians.

In other words, white-collar productivity gains will have to come from us.

That's a little scary: Most of us concentrate on the other guy. It's also a real challenge because there are few common denominators that we can focus on in what we do.

We can generalize some of the factors common to most white-collar jobs. They are:

- Planning
- Organization
- Communication
- Control
- Analysis
- Problem-solving
- Decision-making
- And implementation, or follow-through

But while these elements are common to the white-collar role, we also have to recognize that each company is unique and that there are discrete sectors in each which will use or emphasize ideas in different ways.

However, there is one sector that all of us should be addressing now . . .

Capital Investment — White-Collar

It is widely recognized that there is a need for much greater capital investment in support of white-collar work.

Research by the American Telephone & Telegraph Corporation showed a capital investment of $2,300 per white-collar worker versus $31,000 per blue-collar worker.

Sperry estimates there's a capital investment of $75,000 per farm worker. And, as you know, U.S. agriculture is the productivity leader by far, not only in this country, but in the world.

But even though these facts are well-known and have been fairly well reported, the response has been spotty.

Sure, we have photocopy machines everywhere and electric typewriters . . . even some word processing . . . But, the fact is that very, very few executives or professionals or technicians are supported by adequate investment in equipment.

Today, most successful capital investment for white-collar work has been in direct support of, or close to, the production line. for such things as CAD/CAM . . . in banking operations . . . in transportation . . . and in financial controls of all kinds.

But, the farther you get from line operations the smaller the per capita capital investment. So, capital investment is one clear need. It also happens to be a good subject that our white-collar quality circles focus on.

There is no "one way" to enhance white-collar productivity. We know at Sperry what I'm sure you know at your organizations:

- People are individuals with individual behavior, needs and motivation. The quality circle, as you're aware, is based on the idea that everyone would like to use his or her brain creatively in addition to working on specific routine assignments. This is a nice premise, but it doesn't reflect universal acceptance by all people in all situations. That includes white-collar areas where it is commonly thought that there is a higher degree of motivation and involvement.

However, there is one common medium for all white-collar work. It is the:

- Processing,
- Transfer,
- and Communication of information.

In my view, that's the place to begin any analysis of ways to improve white-collar productivity.

But in a big, far-flung company like Sperry, we run right away into a situation that I'm sure exists in various ways in your own organizations. We find that Sperry is very good in the high-technology areas of processing and transferring information. We use advanced telecommunications, computers and other data processing equipment to do the job. After all, that's the centerpiece of our business.

But then we find that our abilities in mind-to-mind communication lag far behind. Sperry certainly is not alone. Almost any management journal these days has something to say about weaknesses in personal communications skills. That's compounded by the well-known problem of one discipline trying to communicate with another, such as accounting talking to engineering, or marketing talking to research.

Quality Circles and 'Listening'

At Sperry, one of the ways we're addressing this is through our "listening" campaign, which you may be aware of. I'm not going into a Sperry commercial here, but some of the things "listening" involves relate directly to our quality circle approach and the fit with our organizational climate.

Research shows that:

- Each of us spends some 80% of his waking hours communicating in some way. Of that time, we spend 9% writing; 16% reading; 30% speaking and 45% listening.
- However, our schooling emphasizes the reverse order. Reading and writing are taught the most. Some time is spent on speaking and very little, if any, time is spent on listening training. Yet, listening is a distinct communications mode like the others. And, given the greater amount of time it involves, it's our most important communications function.
- The research shows that people listen at only 25 percent effectiveness in terms of information retained. The worst aspect of this is that the remainder is subject to costly distortion and error. For business, this represents a big cost.

So, Sperry is training its more than 90,000 employees in listening. Our seminars typically are seven hours long. Each involves 16 to 24 people. The courses are conducted by our own management training cadre. So far, 950 seminars have been held and more than 17,000 people have been trained.

It's Sperry's belief that emphasis on the listening aspect of communications underlines the need and value of all communications skills. This is particularly relevant to what are called "quality circles" because each circle is, essentially, a communications structure aimed at maximizing involvement, participation and development of the individual, group and organization.

So far, I've been talking about white-collar quality circles in more or less general terms. Now I'd like to get down to Sperry's actual experience. At the beginning of this presentation I mentioned that Sperry's quality circle program has been aimed at both blue and white-collar workers. I think it's fair to say that, as time goes by, we will be increasing the opportunities for a greater proportion of white-collar participation.

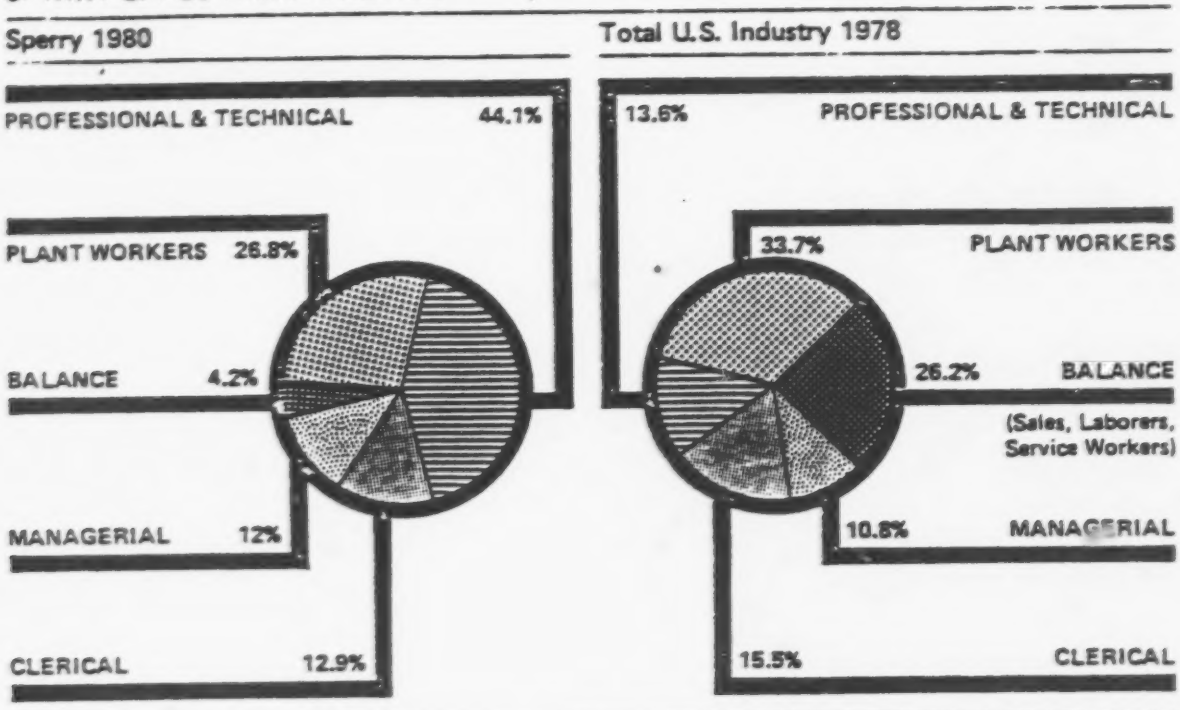
Why?

This chart shows you the reason. Looking at the plant workers segment, you see that they represent less than 27 percent of the Sperry work force. Their productivity and quality performance generally are good. We want them to be better, naturally. And, they will be. Quality circles will help. But, the fact is that we can't expect that slice of the pie to account for all of the aggregate improvements we want. The reasons are:

- We already support our plant workers with very heavy capital investments . . . more than $600 million in the past five years.
- Also, we have a skilled work force with good morale. So, we can't count on upgrading skills or improving attitudes of workers to give us a big productivity lift, even though we have active programs in both areas.

As you can see in the other segments of the pie, Sperry's work force is very heavily weighted toward white-collar work. Almost half of our people are in professional and technical occupations.

SPERRY EMPLOYMENT PROFILE



Now compare that with U.S. industry generally:

- Our share of professional and technical people is more than triple the norm and we have a slightly larger share of managerial personnel. Counting clerical workers, our white-collar work force represents more than seventy percent of our total employment. In industry generally, it's about forty percent.

So, our need is pretty well defined for us. In order for Sperry to manage change effectively, maintain dynamic equilibrium and grow profitably, we must recognize that we have to have a "listening" system that responds to customers, employees, stockholders and others with a stake in our future, such as suppliers and plant communities. And, this system must key mainly on the behavior of the white-collar sector.

The quantitative profile of Sperry's white-collar quality circles can be stated simply:

- Within the past year, 74 circles have been initiated in the United States, most of them within the past six months.
- They have more than 600 participants.
- And they are located in 11 of Sperry's major facilities.
- 39 of the circles are associated with the defense systems operations of our Sperry Univac division. Those particular operations center on very high technology. We find the quality circle idea fits in very well in that particular environment.

  I mention this because it emphasizes my earlier point that discrete sectors will use or emphasize ideas like quality circles in different ways.

The qualitative comparison of Sperry's white and blue-collar quality circles is a bit more complex:

- They are similar in that participation is voluntary, and they are self governing with identical codes of conduct. In both cases, circles include a "facilitator" . . . a kind of ombudsman . . . who has clear access to the top decision makers and the responsibility to take circle ideas and proposals to them.

So much for the similarities. What differences do we see?

- Our blue-collar circles focus mainly on products, direct cost reduction and quality.

Those are the areas where they have the day-to-day experience.

- In contrast, white-collar circles seem to be less structured than blue-collar circles. They tend to address broader problems related to processes, procedure and data. The white-collar sessions experience more spontaneity and brain-storming, compared with the more structured problem-solving style of the blue-collar circles.

Now, just what do we get from all of this?

Obviously, we get a lot of ideas that cover the whole range of good, bad and indifferent. I don't want to take your time reciting a lot of details.

Topics range from proposals centering on large-scale computer programs and the like, which represent relatively long-term efforts to quality of work life situations concerned with a specific work station layout where resolutions are speedily effected.

However, I don't want to leave you with the impression that we look only for specific measurable results. Obviously, they're welcome, but we really see quality circles as a policy tool. The benefits of this show up in overall performance over time and in human relations terms.

However, from our investment in white-collar circles we look not only for ways to make incremental changes in productivity, quality and innovation, but also for changes in attitude and behavior which create goal congruence and organizational flexibility.

Quality circles help us manage change. Seen in that light, the white-collar circle becomes an investment kindred to research and development. That is, it's an investment from which we know benefits will come, but which we can't predict with precision.

By now, of course, you are making up your own minds about whether Sperry's point of view and experience are of value to you. But before I respond to any questions you might have, I'd like to make some recommendations to those of you whose organizations are considering a quality circle program.

- As I stated earlier, there is no "one way" to gain productivity. Quality circles are only one of many ways to communicate with and motivate employees, reduce costs, improve quality and inspire innovation.
- It should be recognized that the quality circle idea implies a fundamental change in the traditional philosophy of American management. For example: a quality circle program means recognizing formally that employees can contribute creatively to identifying and solving operational problems.
- Thirdly, appraise your companies' organizational climates and management styles to measure the compatibility with this participatory, bottom-up concept.

Assuming a "GO" decision, this can be achieved by:

- First, retaining a consultant. Why? Because you need an outsider's objective appraisal and his experience in initiating the process.
- Second, establish a steering committee. This is partly to get top management support, which is absolutely vital to such a program . . . or any management program, for that matter. The committee also serves to actively communicate, maintain, and sustain the concept.
- Third, provide facilitators who report at a high organization level. This is very important to provide both:
  - A visible symbol of management support.
  - And a conduit for useful output as well as a medium for resolving conflicts.
- Fourth, provide initial and continuing training for both your circle leaders and members. This training should include sections on quality, control, problem solving, interpersonal relations, group dynamics, and listening.

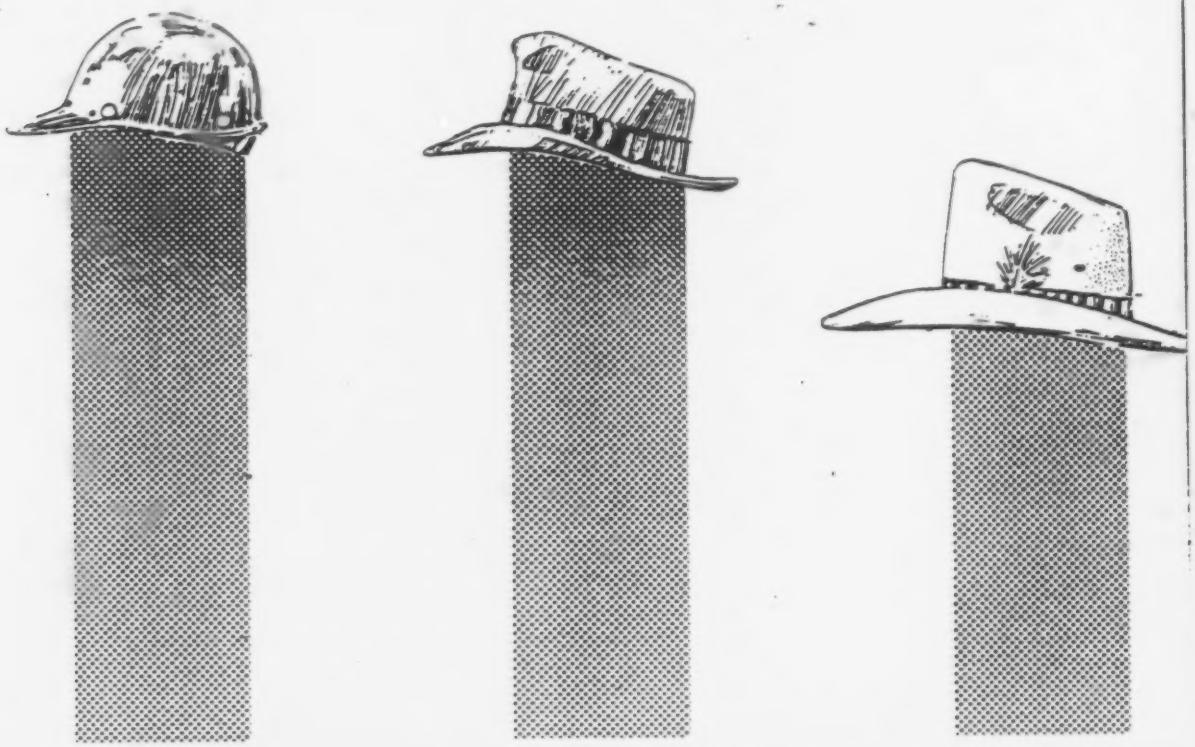
Finally one last caveat.

Managing people is an art, not a science. Philosophies, such as quality circles, which work well in one employer-employee relationship may not work well in another.

But most importantly, if you decide to initiate quality circles, be prepared specifically to:

- Communicate
- Train
- Plan
- Support
- Listen
- Evaluate

And above all else . . . *manage.*



Quality circles is a relatively new concept here in the U.S. that is becoming popular very quickly, apparently because it works. It works in measurable, tangible, specific ways.

When introduced to an engineering group not long ago, a definition of the word "facilitate" was given to the group. The gentleman introducing me told the group it meant "to make easy." Hopefully, that's what the role of facilitator does — makes it easier for the circles to operate and to recommend, implement, and verify solutions to problems in their everyday work life.

The following are some objectives we have at Milacron which were also reasons for implementing circles:

- Improve employee attitudes
- Recognize employee's abilities
- Improve communications
- Promote quality awareness
- Improve performance

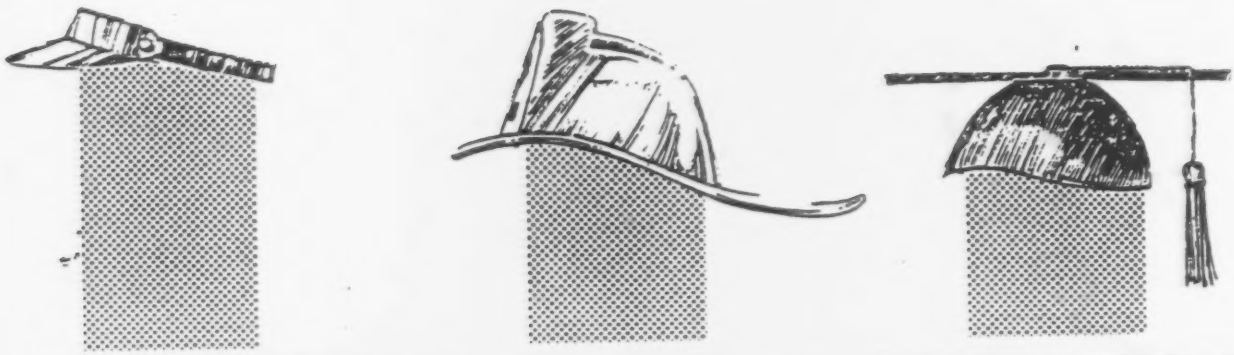
Attitude Upon implementing a circle, facilitators have each member and leader fill out an opinion survey. Approximately six months later, we have the circle fill out a post-opinion survey. This is done to obtain a measurable base of improvement in attitude or morale.

Employee Abilities Circles are a way to prove that an employee is more than hands, feet, and muscle. It is a way to show that person is a thinking, creative human resource, and valuable to the company. Circles recognize these facts and help build people. The facilitator plays an active role in this.

Communications Circles can and do improve communications, just by people exchanging information at weekly meetings. Also, the facilitator can be a link, carrying information to and from management, other leaders and members when required.

A Report on the Role of the Facilitator

Peggy L. Barnes



Quality Circles cause people to think quality. Every circle implemented at Milacron talks quality at one time or another. A leader circle is presently developing a corporate-wide Quality Awareness program to operate on a continuing basis.

Performance It is stressed that by using circle techniques we can teach members to work smarter, not harder, thereby becoming more efficient. This in turn will improve performance.

Attributes which we feel are important for a facilitator to have are listed below:

- Familiarity with company
- Liked and respected
- People oriented (Theory Y)
- Experienced in coordinating
- Competent communicator
- Teaching skills
- Training in behavioral sciences
- Ability to interface without dominating circle activities
- Experience in industrial engineering desirable.

The duties and role played by the facilitator are complex. As you can see by the objectives and desired attributes, the facilitator must be able to cope with many people and projects at one time. That person must also be able to mentally "shift gears" quickly and efficiently from meeting to meeting, day after day. The following paragraphs outline some of these duties and roles.

People Builder Developing people is probably the most important role for the facilitator. The training, the interaction during meetings, communicating with each other, and the management presentation all play a part in this developmental stage. It is also a very gratifying, rewarding experience for the facilitator to witness.

Communicator Teaching members and leaders to talk management's language is only one role the facilitator plays. The facilitator is also required to be a good spokesman for the circles as well as representing management to the circle. Being a diplomatic, tactful, enthusiastic communicator is a vital role.

Coordinator The facilitator must juggle many duties and play various roles. In addition to periodically training new circles, a facilitator may be involved as a liaison for circles wishing to obtain technical assistance, or helping another circle get ready for a presentation. Circles need a lot of T.L.C. (tender loving care) in initial stages.

Training Facilitators help train other facilitators. They also help train leaders and members. This is a key role in making the circle productive. Currently, we give facilitators four days intensive training plus "shadowing" current facilitators. Leaders receive three days intensive training and members receive eight hours.

Liaison Another key role for the facilitator is being the liaison between circles and management. It is imperative that in this role the facilitator be assertive yet diplomatic and tactful, and a good communicator.

Steering Committee Facilitators are normally members, or have a representative, on the steering committee. This role is important because it is an effective way for the facilitator to interface, communicate and act as liaison between circles and management.

Monitor It is important for the facilitator to monitor the effectiveness of a circle by documenting and measuring accomplishments whenever possible.

Recognition The facilitator must make sure the circle is recognized for its accomplishments. We do several things at Milacron:

1) Training achievement becomes part of the personnel record
2) Certificates are awarded when training is completed
3) Lunch in executive dining room
4) Quality circle T-shirts
5) After management presentation, articles appear in company newspaper and newsletter for recognition

As you can see from the above, the facilitator must be skilled in management development, organizational development and behavioral sciences.

Circles go through many stages and cycles to reach maturity — and circles like people can be very moody. A facilitator never knows from one meeting to the next what type of mood the circle may be in.

Problems

Problems encountered by the facilitator while circles are growing are many:

Ownership or Dependency Circles can become too dependent on a facilitator. Care must be taken to promote the circle's sense of pride or ownership enabling them to gradually break away from dependency on the facilitator.

Responsibility The facilitator carries a large responsibility for the circle program, often without authority. This can be a burden if not handled properly. Being an expeditor or promoter is not an easy task.

Enthusiasm Drain Such responsibility can cause a certain loss of enthusiasm after a period of time. A facilitator must inject enthusiasm into the circles, must be a promoter of projects, must be able to sell ideas, support, coordinate and motivate — or — quite simply, "make it happen."

Becoming Stale All the activities mentioned above may create another problem — the facilitator can become stale or bored. The facilitator must be deeply committed to quality circles.

Content vs Process The facilitator is a processor of facts and information. This role may become confused during a circle project if the facilitator becomes too involved in the problem-solving content itself. Care must be taken to prevent this.

Dual Perspective There is a dual role of teaching, coaching and motivating on one hand and a responsibility to management to make it work. This could set up a conflict for the facilitator. Care must be taken to remain objective at all times.

Administrative Documentation of circle activities and results can be a complex problem for a facilitator especially in the beginning stages. However, documentation and measurement of results are vital for the success of the program.

Possible Solutions Some possible solutions to the above are **1.** to use full-time facilitators. **2.** have on-going training for all. **3.** that the facilitators' manager must be supportive. **4.** recognition of a job well done, and **5.** train circles to process, take ownership and document results.

A solution for the drain of enthusiasm might be to rotate the facilitator responsibilities or have leaders act as facilitators. This is another way of developing members. A line manager could assume this responsibility for a one-year period, then go on to his original responsibility or another job.

Another area for possible future facilitators is in training and development. Skilled people from this area can be a huge asset to the circle program.

Lastly, the complex administrative duties can be alleviated somewhat by looking to other areas within the company for support and assistance, such as secretarial pools, financial and industrial engineering areas.

Summary

The facilitator plays a key role in the success of the quality circle program. The facilitator role is a challenging exciting role, but not without frustrations. In choosing a facilitator it is very important that management look for a person who is creative, willing to take risks, can lead without dominating, is able to cope with the multitude of daily problems, and still remain consistent and objective in the role.

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APPENDIX G

EVALUATION
QUALITY CIRCLES SEMINAR

Please indicate the extent to which each session was beneficial to you.

	Low				High
Teampower and Brainwork slide/tape	1	2	3	4	5
Comments:					
Motivation and Management Theory	1	2	3	4	5
Comments:					
How Quality Circles Operate/Videotape of Management Presentation	1	2	3	4	5
Comments:					
Elements of a Successful Program/Potential Problems	1	2	3	4	5
Comments:					
Steps to Implementation	1	2	3	4	5
Comments:					

What did you like most about the workshop?

What did you like least?

What specific suggestions could you make for improvement?

Will you be interested in facilitator training in the spring?

EVALUATION
QUALITY CIRCLES IN INDUSTRY

Please indicate the extent to which each seminar was beneficial to you.

	Low				High
"Hughes Circles" Videotape/Discussion	1	2	3	4	5
Comments:					
How Quality Circles Operate/Videotapes of Management Presentation	1	2	3	4	5
Comments:					
Motivation and Management Theory	1	2	3	4	5
Comments:					
Problems/Steps to Implementation	1	2	3	4	5
Comments:					
Comments by Industry Consultants	1	2	3	4	5
Comments:					

What did you like most about the workshop?

What did you like least?

What specific suggestions could you make for improvement?

Would you be interested in facilitator training in the spring?

_____Yes _____No _____Possibly

If yes, give name and address:

_____

_____

_____

_____

APPENDIX H

IDENTIFYING PROBLEMS

Instructions:

Team Member 1

(1) Teach the group the information on pages 4 and 5 of the gray sheets.

(2) The rules for brainstorming should be printed on newsprint for display.

(3) Show the Brainstorming slide/tape.

(4) "Specific behaviors for leading a problem identification session" should be printed on newsprint for display.

(5) Show the video demonstration on identifying problems. Use the specific behaviors sheet and the key principles sheet to lead the group in critiquing the leader.

Role Playing: (There will be a facilitator and a leader)

Team Member 2 As facilitator you will conduct a pre-meeting session with the leader.

Team Member 3 As leader you will conduct the exercise keeping in mind the specific behaviors for leading a problem identification session.

EXERCISE:

You are the department head of the Math Department. The attrition rate in Technical Mathematics I has reached alarming proportions. Our goal is to reduce attrition by 20% over the next year.

Brainstorm all the factors that could be leading to a high attrition rate in Technical Mathematics I.

Team Member 2 Conduct a post meeting session with the leader using the feedback sheet.

ANALYZING THE PROBLEM - PART 1

Instructions:

Team Member 1

(1) Teach the group the information on pages 2, 6 - 9 of the gray sheets.

(2) Show the slide/tape at the point indicated.

(3) "Specific behaviors for analyzing a problem" should be printed on newsprint for display.

(4) Show the videotape. Use the specific behaviors sheet and the key principles sheet to lead the group in critiquing the leader.

Role Playing:

(There will be a facilitator and a leader)

Team Member 2

As facilitator you will conduct the exercise keeping in mind the specific behaviors for analyzing a problem.

Team Member 3

As leader you will conduct the exercise keeping in mind the specific behaviors for analyzing a problem.

EXERCISE:

Your Nursing Department developed an audio-tutorial lab for their students as a result of a survey conducted two years ago that uncovered a need for additional help in a non-compulsory lab in a compulsory course. Attendance has been far less than expected even though the students still say they need help with the course.

Using Cause and Effect Analysis identify possible causes for non-attendance to the lab. (Caution: Don't let participants generate solutions to the problem.)

Team Member 2

Conduct a post meeting session with the leader using the feedback sheet.

Analyzing the Problem - Part II

Instructions:

Team Member 1

(1) Teach the group the information on pages 5 - 8 of the gray sheets.

(2) Show the slide/tape at the point indicated.

(3) "Specific behaviors for analyzing a problem using information sorting techniques" should be printed on newsprint for display.

(4) Show the video demonstration on Analyzing the Problem - Part II. Use the specific behaviors sheet and the key principles sheet to lead the group in critiquing the leader.

Role Playing: (There will be a facilitator and a leader)

Team Member 2 — As facilitator you will conduct a pre-meeting session with the leader.

Team Member 3 — As leader you will conduct the exercise, keeping in mind the specific behaviors for analyzing a problem.

Exercise:

Read the Case of the Resilient Cereals to the group and carry out Team Actions Nos. 1, 2, and 3 with the group role playing as a team.

Team Member 2 — Conduct a post-meeting session with the leader using the feedback sheet.

Generating Solutions

Instructions:

Team Member 1

(1) Teach the group the information on pages 3-6.

(2) Review brainstorming but you don't need to show the slide/tape.

(3) "Specific behaviors for generating solutions" should be printed on newsprint for display.

(4) Show the video demonstration on Generating Solutions. Use the specific behaviors sheet and the key principles sheet to lead the group in critiquing the leader.

Role Playing: (There will be a facilitator and a leader)

Team Member 2 As facilitator you will conduct a pre-meeting session with the leader.

Team Member 3 As leader you will conduct the exercise, keeping in mind the specific behaviors for generating solutions.

Team Member 3 EXERCISE:

Read the case study to the group, having first listed all the salient facts on newsprint to be posted where everyone can see them. Brainstorm the solutions to the problem indicated in the case.

Team Member 2 Conduct a post-meeting session with the leader using the feedback sheet.

CASE STUDY

You are the head of the Chemical Engineering Technical Department. You are experiencing difficulty with one of the polymer experiments in the Materials Testing lab. For this test you obtain material that is frozen immediately after it is manufactured. It must remain frozen until it is used in the testing process.

The material is delivered to the lab by refrigerated truck and immediately stored in the lab's freezer until it is drawn by the instructor. Once the material is drawn from the freezer, it must be used in the next 60 minutes or it will become chemically unstable. Once it is thawed, it can not be refrozen. If it is thawed and refrozen it will invalidate the testing process.

Lately, you are getting a disproportionate number of invalid tests, which leads you to believe that the material has thawed at some point and then been refrozen. Your team's task is to brainstorm some solutions to the following problem:

HOW CAN WE BE SURE THAT WE USE MATERIAL WHICH HAS NOT THAWED AND REFROZEN?

Selecting a Solution

Instructions:

Team Member 1

(1) Teach the group the information on pages 5, 6 and 9.

(2) "Specific behaviors for selecting solutions" should be printed on newsprint for display.

(3) Do not show the video at this time.

Role Playing: (There will be a facilitator and a leader)

Team Member 2 — As facilitator you will conduct a pre-meeting session with the leader.

Team Member 3 — As leader you will conduct the exercise, keeping in mind the specific behaviors for selecting a solution.

Exercise:

With the group, view the first part of the videotape "Selecting a Solution" and draw the evaluation worksheet on newsprint using the same alternative solutions and the criteria as the video.

Stop the video.

With the group, evaluate the solutions and select the best solution. Finish viewing the videotape.

Team Member 2 — Conduct a post-meeting session with the leader using the feedback sheet.

FOLLOWING UP

Instructions:

Team Member 1

(1) Teach the group the information on pages 5-8.

(2) "Specific behaviors for following up action items" should be printed on newsprint for display.

Team Member 2

(1) Show the first half of the video demonstration on following up. Use the specific behaviors sheet and the key principles sheet to lead the group in critiquing the leader.

(2) Role Play with another member of your team episode #1 in the case study of Lee County Community College.

Team Member 3

(1) Show the last half of the video demonstration on following up. Use the specific behaviors sheet and the key principles sheet to lead the group in critiquing the leader.

(2) Role Play with another member of your team episode #2 in the case study of Lee County Community College.

CASE STUDY - LEE COUNTY COMMUNITY COLLEGE

You are Terry Jackson, the leader of a very successful improvement team. Your team was one of the first started by Lee County Community College. The team is over a year old and last year it developed several improvements. You are proud of the team's performance and are looking forward to another good year.

At your last meeting you worked on a project that shows real promise. Several team members took action items related to the project. You begin this meeting with a review of the action items. Below are the responses you got from the members.

EPISODE #1

Bill Jones, one of your employees, had the assignment to talk to another department and get their inputs on trouble spots in the new procedures. When called upon, Bill gives a very complete report. He even has the problems ranked in order of importance.

Your response:

EPISODE #2

Tom, another team member, has an old action item. He has received two extensions on this one already. You are concerned that Tom is not carrying his load. When called on he says:

"I still haven't got the data. I just can't get the maintenance department to cooperate."

Your response:

GAINING APPROVAL AND SUPPORT

Instructions:

Team Member 1

(1) Teach the group the information on pages 5 - 7.

(2) Show the management presentation slide/tape.

(3) Print the Presentation Worksheet on newsprint for display.

Role Playing:

(Your team will role play a management presentation)

EXERCISE:

Complete Team Task Nos. 1,2,3 and 4. Read the case study of Dorchester Community College to the group. Role play Team Task No. 6.

Identifying Problems

Instructions:

Team Member 1

(1) Teach the group the information on pages 4 and 5 of the gray sheets.

(2) The rules for brainstorming should be printed on newsprint for display.

(3) Show the Brainstorming slide/tape.

(4) "Specific behaviors for leading a problem identification session" should be printed on newsprint for display.

(5) Show the video demonstration on identifying problems. Use the specific behaviors sheet and the key principles sheet to lead the group in critiquing the leader.

Role Playing: (There will be a facilitator and a leader)

Team Member 2 — As facilitator you will conduct a pre-meeting session with the leader.

Team Member 3 — As leader you will conduct the exercise keeping in mind the specific behaviors for leading a problem identification session.

Exercise:

You are a fast food manager and the group is your circle. Use of paper and plastic products is rising beyond what you would expect in proportion to the number of customers you serve. This represents waste.

One of your goals for the year is to reduce waste in all areas by 10% and certainly reduction of waste in paper and plastic products. Brainstorm all the ways in which waste of paper and plastic products may be occurring.

Team Member 2 — Conduct a post-meeting session with the leader using the feedback sheet.

Analyzing the Problem - Part I

Instructions:

Team Member 1

(1) Teach the group the information on pages 2, 6 - 9 of the gray sheets.

(2) Show the slide/tape at the point indicated.

(3) "Specific behaviors for analyzing a problem" should be printed on newsprint for display.

(4) Show the videotape. Use the specific behaviors sheet and the key principles sheet to lead the group in critiquing the leader.

Role Playing:

There will be a facilitator and a leader.

Team Member 2

As facilitator you will conduct the exercise keeping in mind the specific behaviors for analyzing a problem.

Team Member 3

As leader you will conduct the exercise keeping in mind the specific behaviors for analyzing a problem.

Exercise:

You are a manufacturer of paper and plastic products for fast food restaurants. Your customers are complaining about receiving damaged and/or soiled paper and plastic products. Analyze this problem using Cause and Effect Analysis .

Team Member 2

Conduct a post meeting session with the leader using the feedback sheet.

Analyzing the Problem - Part II

Instructions:

Team Member 1

(1) Teach the group the information on pages 5 - 8 of the gray sheets.

(2) Show the slide/tape at the point indicated.

(3) "Specific behaviors for analyzing a problem using information sorting techniques" should be printed on newsprint for display.

(4) Show the video demonstration on Analyzing the Problem - Part II. Use the specific behaviors sheet and the key principles sheet to lead the group in critiquing the leader.

Role Playing: (There will be a facilitator and a leader)

Team Member 2 — As facilitator you will conduct a pre-meeting session with the leader.

Team Member 3 — As leader you will conduct the exercise, keeping in mind the specific behaviors for analyzing a problem.

Exercise:

Read the Case of the Resilient Cereals to the group and carry out Team Actions Nos. 1, 2, and 3 with the group role playing as a team.

Team Member 2 — Conduct a post-meeting session with the leader using the feedback sheet.

Generating Solutions

Instructions:

Team Member 1

(1) Teach the group the information on pages 3-6.

(2) Review brainstorming but you don't need to show the slide/tape.

(3) "Specific behaviors for generating solutions" should be printed on newsprint for display.

(4) Show the video demonstration on Generating Solutions. Use the specific behaviors sheet and the key principles sheet to lead the group in critiquing the leader.

Role Playing: (There will be a facilitator and a leader)

Team Member 2 — As facilitator you will conduct a pre-meeting session with the leader.

Team Member 3 — As leader you will conduct the exercise, keeping in mind the specific behaviors for generating solutions.

Team Member 3 — Exercise:

Read Case GS-1, Bartlett Petroleum Products to the group, having first listed all the salient facts on newsprint to be posted where everyone can see them. Brainstorm the solutions to the problem indicated in the case.

Team Member 2 — Conduct a post-meeting session with the leader using the feedback sheet.

Selecting a Solution

Instructions:

Team Member 1

(1) Teach the group the information on pages 5, 6 and 9.

(2) "Specific behaviors for selecting solutions" should be printed on newsprint for display.

(3) Do not show the video at this time.

Role Playing: (There will be a facilitator and a leader)

Team Member 2

As facilitator you will conduct a pre-meeting session with the leader.

Team Member 3

As leader you will conduct the exercise, keeping in mind the specific behaviors for selecting a solution.

Exercise:

With the group, view the first part of the videotape "Selecting a Solution"and draw the evaluation worksheet on newsprint using the same alternative solutions and the criteria as the video.

Stop the video.

With the group, evaluate the solutions and select the best solution. Finish viewing the videotape.

Team Member 2

Conduct a post-meeting session with the leader using the feedback sheet.

Following Up

Instructions:

Team Member 1

(1) Teach the group the information on pages pages 5-8.

(2) "Specific behaviors for following up action items" should be printed on newsprint for display.

(3) Show the video demonstration on following up. Use the specific behaviors sheet and the key principles sheet to lead the group in critiquing the leader.

Role Playing:

(There will be a team leader, team member [Team Member #1 should take this role] and an observer)

Exercise:

Assign each role and follow the directions given on the white sheets, pages 10-12.

Gaining Approval and Support

Instructions:

Team Member 1

(1) Teach the group the information on pages 5-7.

(2) Show the Management Presentation slide/tape.

(3) Print the Presentation Worksheet on newsprint for display.

Role Playing:

(Your team will role play a management presentation)

Exercise:

Complete Team Task Nos. 1, 2, 3 and 4. Read Case AS-2 Dorchester Industries to the group. Role play Team Task No. 6.

FEEDBACK

"Feedback" is a way of helping another person to consider changing his behavior. It is communication to a person (or a group) which gives that person information about how he affects others. As in a guided missile system, feedback helps an individual keep his behavior "on target" and thus better achieve his goals.

Some criteria for useful feedback:

1. It is descriptive rather than evaluative. By describing one's own reaction, it leaves the individual free to use it or to use it as he sees fit. By avoiding evaluative language, it reduces the need for the individual to respond defensively.

2. It is specific rather than general. To be told that one is "dominating" will probably not be as useful as to be told that "just now when we were deciding the issue you did not listen to what others said and I felt forced to accept your arguments or face attack from you."

3. It takes into account the needs of both the receiver and giver of feedback. Feedback can be destructive when it serves only our own needs and fails to consider the needs of the person on the receiving end.

4. It is directed toward behavior which the receiver can do something about. Frustration is only increased when a person is reminded of some shortcoming over which he has no control.

5. It is solicited, rather than imposed. Feedback is most useful when the receiver himself has formulated the kind of question which those observing him can answer.

6. It is well-timed. In general, feedback is most useful at the earliest opportunity after the given behavior (depending, of course, on the person's readiness to hear it, support available from others, etc.)

7. It is checked to insure clear communication. One way of doing this is to have the receiver try to rephrase the feedback he has received to see if it corresponds to what the sender had in mind.

8. When feedback is given in a training group, both giver and receiver have opportunity to check with others in the group the accuracy of the feedback. Is this one man's impression or an impression shared by others?

Feedback, then, is a way of giving help. It is a corrective mechanism for the individual who wants to learn how well his behavior matches his intentions.

APPENDIX I

EVALUATION

	not helpful		helpful		very helpful
1. In terms of my future role in QC facilitation, I found the role play method to be	1	2	3	4	5
2. In terms of my future role in QC facilitation, I found viewing others in a role play situation to be	1	2	3	4	5

	poor		good		excellent
3. I would rate Don's effectiveness as a trainer in this workshop as	1	2	3	4	5

4. Suggestions for improvement?

5. I would rate Doris' effectiveness as a trainer in this workshop as	1	2	3	4	5

6. Suggestions for improvement?

7. How would you have liked the structure of the workshop to have been different?

Evaluation Comments

- I needed a better overview of the workshop presented to me on Monday morning; also I'd like a brief schedule derived from that overview always in sight during the three days.
- Excellent workshop! Well done!
- I feel more informed about quality circles now than when I came.
- I would like to personnally thank Doris and Don for the additional help at breaks and their excellent attitudes when I needed to ask the same questions more than once.
- More exercises on first day to involve persons.
- Thanks for helping me to continue to grow.
- Add more information to backup, compliment the "real life" applications of structured theory.
- More time to be here. (One week)
- Were very organized and knowledgeable of the subject.
- I think less emphasis should have been put on how to train and more emphasis put on a good working understanding of the QC techniques and facilitator skills.
- To have spent a little less time in role play situations, perhaps more group discussion, less formal lecture style.
- The two day exercise (role play, etc.) was fabulous.
- More carefully spelled out instructions to small work groups.
- One thing I would not change is your informal styles in which work was built up to be fun.
- The workshop was structured quite well in that the leaders did not do all of the lecturing. Group participation and

peer teaching are excellent methods of presenting information.

- It was handled perfectly.
- I was totally satisfied with the workshop. I have benefitted from it tremendously. Thanks for everything. Keep up the good work. You are doing a tremendous service to the work force of America.
- I only wish that the workshop would have been ongoing for a bit longer. It is a real pleasure to learn from people who really know their stuff.